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m. m. S.
1/11/97.

Special Attention is called to the following:

The next Annual Meeting of the MEDICAL SOCIETY OF NEW JERSEY will be held at Atlantic City, on the fourth Tuesday in June, 1897.

Each District Society is entitled to three Delegates at large and one additional for every ten members.

The District Reporters are requested to send their reports to the Chairman of the Standing Committee at least three weeks before the time of the Annual Meeting.

The Standing Committee would remind Reporters that their reports are to be published in the volume of Transactions, and should therefore be carefully prepared, and that names and medical terms especially should be distinctly written. Reports from other physicians should be incorporated in their own report.

The assessment for the year 1896, upon District Societies, is one dollar for each member.

The Secretaries of the respective Societies are requested to send a list of Delegates and Members, with Post Office addresses, to the Recording Secretary, Dr. Wm. Pierson, Orange, at least ten days before the Annual Meeting.

FELLOWS' PRIZE ESSAY.

This prize was instituted by the Fellows of the Medical Society of New Jersey in 1881, and is open for competition to the members of the District Medical Societies.

The Essays may be on any subject connected with the practice of medicine. The Essays must be signed with an assumed name and have a motto, both of which shall be endorsed on a sealed envelope, to accompany the Essay, containing the author's name, residence and District Society.

The Essays must be placed in the hands of the Chairman of the Committee on or before the fourth Tuesday in May, 1897.

The Committee will select the first two Essays in order of merit. To the first will be awarded the prize of one hundred dollars; to the second that of honorary mention. Preference will be given to original work.

The unsuccessful authors will receive back their Essays upon their identification to the Chairman of the Committee. The successful Essay will be the property of the Society and be published in its Transactions.

No awards will be made unless the merits of the Essays shall be of a decided character.

WM. ELMER, M. D., *Chairman*, Trenton,
CHARLES J. KIPP, M. D., Newark,
P. A. HARRIS, M. D., Paterson,
Committee.

ORANGE, N. J., August, 1896.

WM. PIERSON, *Sec'y.*

TRANSACTIONS

OF THE

MEDICAL SOCIETY

OF

NEW JERSEY.

1896.

L. J. Hardham, Printer, 243 & 245 Market Street, Newark, N. J.

1896.

OFFICERS, 1896.

PRESIDENT.

T. J. SMITH, - - - - - - BRIDGETON

VICE-PRESIDENTS.

D. C. ENGLISH, - - - - - - NEW BRUNSWICK
C. R. P. FISHER, - - - - - - BOUND BROOK
LUTHER M. HALSEY, - - - WILLIAMSTOWN

CORRESPONDING SECRETARY.

E. L. B. GODFREY, - - - - - - CAMDEN

RECORDING SECRETARY.

WILLIAM PIERSON, - - - - - - ORANGE

TREASURER.

ARCHIBALD MERCER, - - - - - NEWARK

STANDING COMMITTEE.

FOR THREE YEARS.

HENRY W. ELMER, - - - - - BRIDGETON
HENRY MITCHELL, - - - - - ASBURY PARK

FOR TWO YEARS.

M. LAMPSON, - - - - - - - JERSEY CITY
CHARLES YOUNG, - - - - - - NEWARK

FOR ONE YEAR.

WILLIAM D. ISZARD, - - - - - - CAMDEN
STEPHEN PIERSON, - - - - - MORRISTOWN

FELLOWS.

All persons who shall have been, or may hereafter be President of the Society, shall rank as Fellows, and be entitled to all the privileges of delegated members.

Act of Incorporation, Sec. 1.

The dates represent the year of official service as President.

Those marked thus (*) are deceased.

*ROBERT MCKEAN 1766
*WILLIAM BURNETT.....1767
*JOHN COCHRAN.....1768
*NATHANIEL SCUDDER....1770
*ISAAC SMITH.....1771
*JAMES NEWELL.. 1772
*ABSALOM BAINBRIDGE....1773
*THOMAS WIGGINS.....1774
*HEZEKIAH STITES.....1775

* * * * * *

*JOHN BEATTY.....1782
*THOMAS BARBER.....1783
*LAWRENCE VAN DERVEER.1784
*MOSES BLOOMFIELD.....1785
*WILLIAM BURNETT.....1786
*JONATHAN ELMER.....1787
*JAMES STRATTON.....1788
*MOSES SCOTT.....1789
*JOHN GRIFFITH.. 1790
*LEWIS DUNHAM..... ...1791
*ISAAC HARRIS.... 1792
*ELISHA NEWELL ... .1795
*JONATHAN F. MORRIS....1807
*PETER I. STRYKER.....1808
*LEWIS MORGAN ... .1809
*LEWIS CONDICT.....1810
*CHARLES SMITH.....1811
*MATT. H. WILLIAMSON..1812
*SAMUEL FORMAN.....1814
*JOHN VAN CLEVE... 1815
*LEWIS DUNHAM.....1816
*PETER I. STRYKER.....1817
*JOHN VAN CLEVE.....1818
*LEWIS CONDICT..... 1819
*JAMES LEE..... 1820
*WILLIAM G. REYNOLDS..1821
*AUGUSTUS R. TAYLOR...1822
*WILLIAM B. EWING.....1823
*PETER I. STRYKER.....1824
*GILBERT S. WOODHULL..1825
*WM. D. MCKISSACK 1826
*ISAAC PIERSON.....1827
*JEPTHA B. MUNN.....1828
*JOHN W. CRAIG.....1829
*AUGUSTUS R. TAYLOR...1830
*THOMAS YARROW.....1831
*FITZ RANDOLPH SMITH..1832
*WILLIAM FORMAN.....1833
*SAMUEL HAYES.....1834
*ABM. P. HAGEMAN.....1835
*HENRY VAN DERVEER...1836
*LYNDON A. SMITH 1837

*Benj. H. Stratton.....1838
*Jabez G. Goble.....1839
*Thomas P. Stewart.....1840
*Ferdinand S. Schenck..1841
*Zachariah Read..... 1842
*Abraham Skillman.....1843
*George R. Chetwood...1844
*Robert S. Smith.....1845
*Charles Hannah.....1846
*Jacob T. B. Skillman....1847
Samuel H. Pennington.1848
*Joseph Fithian.....1849
*Elias J. Marsh.....1850
*John H. Phillips.....1851
*Othn'l H. Taylor.....1852
*Samuel Lilly.....1853
*A. B. Dayton.....1854
*J. B. Coleman... 1855
*Richard M. Cooper.....1856
*Thomas Ryerson.....1857
*Isaac P. Coleman.....1858
*John R. Sickler.....1859
*Wm. Elmer. 1860
*Jno. Blane.....1861
*Jno. Woolverton.....1862
*Theo. R. Varick.....1863
*Ezra M. Hunt.....1864
*Abram Coles..... 1865
*Benjamin R. Bateman...1866
Jno. C. Johnson.....1867
*Thomas J. Corson.....1868
*William Pierson 1869
*Thomas F. Cullen.....1870
*Charles Hasbrouck....1871
Franklin Gauntt 1872
*T. J. Thomason.....1873
*G. H. Larison.....1874
*Wm. O'Gorman.....1875
*Jno. V. Schenck.....1876
Henry R. Baldwin.....1877
John S. Cook.....1878
Alex. W. Rogers.....1879
*Alex. N. Dougherty.....1880
*Lewis W. Oakley..... .1881
*John W. Snowden.....1882
*Stephen Wickes.....1883
P. C. Barker.....1884
*Joseph Parrish.....1885
Charles J. Kipp.....1886
John W. Ward.....1887
H. Genet Taylor.....1888
*B. A. Watson... 1889
*Jas. S. Green.....1890
Elias J. Marsh.....1891
George T. Welch.....1892
John G. Ryerson.....1893
O. H. Sproul.....1894
William Elmer.....1895

HONORARY MEMBERS.

*DAVID HOSACK, New York.....1827
*J. W. FRANCIS.....1827
*JOHN CONDICT, Orange.....1830
*USHER PARSONS, Rhode Island.....1839
*REUBEN D. MURPHY, Cincinnati.....1839
*ALBAN G. SMITH, New York.....1839
*WILLARD PARKER, New York.....1842
*VALENTINE MOTT, New York.....1843
*JONATHAN KNIGHT, New Haven.....1848
*NATHANIEL CHAPMAN, Philadelphia.....1848
*ALEXANDER H. STEPHENS, New York.....1848
*JOHN C. WARREN, Boston.....1849
*LEWIS C. BECK, New York.....1850
*JOHN C. TORREY, New York.....1850
*GEORGE B. WOOD, Philadelphia.....1853
H. A. BUTTOLPH, Short Hills, N. J.....1854
ASHBEL WOODWARD, Franklin, Conn.....1861
*THOMAS W. BLATCHFORD, Troy, N. Y.....1861
*JEREMIAH S. ENGLISH, Manalapan, N. J.....1867
*STEPHEN WICKES, Orange, N. J.....1868
*S. O. VANDERPOOL, Albany, N. Y.....1872
*JOSEPH PARRISH, Burlington, N. J.....1872
*FERRIS JACOBS, Delhi, N. Y.....1872
C. A. LINDSLEY, New Haven, Conn.....1872
WM. PEPPER, Philadelphia.....1874
S. WIER MITCHELL, Philadelphia.....1876
CYRUS F. BRACKETT, Princeton, N. J.....1880
*JOSEPH C. HUTCHINSON, Brooklyn, N. Y.....1880
THOMAS ADDIS EMMETT, New York.....1884
*ISAAC E. TAYLOR, New York.....1884
*D. HAYES AGNEW, Philadelphia.....1886
*JOS. LEIDY, Philadelphia.....1886
FREDERICK S. DENNIS, New York.....1893
*JOHN H. RIPLEY, New York.....1893
VIRGIL P. GIBNEY, New York.....1893
WILLIAM PIERSON, Orange, N. J.....1894
ABRAM JACOBI, New York.....1896
E. M. V. MARCY, Camden.....1896

PERMANENT DELEGATES.

HENRY C. NEER,	1892	P. A. HARRIS,	1893
JAMES M. RIDGE,	1892	GEORGE EVANS READING,	1893
ALEX. MARCY,	1892	B. A. WADDINGTON,	1893
V. M. D. MARCY,	1892	JOHN HELM,	1895
W. H. C. SMITH,	1892	W. H. VREELAND,	1895
*C. F. J. LEHLBACH,	1892	O. B. GROSS,	1895
CHARLES YOUNG,	1892	D. W. BLAKE,	1895
JOHN H. J. LOVE,	1892	N. NEWLIN STOKES,	1895
ARTHUR WARD,	1892	LEVI FARROW,	1895
JOSEPH C. YOUNG,	1892	GEORGE C. LAWS,	1895
ISAAC S. CRAMER,	1892	E. MORRISON,	1895
J. D. MCGILL,	1892	H. M. WEEKS,	1895
J. HOWARD PUGH,	1892	R. R. ROGERS, SR.,	1895
ROBERT F. CHABERT,	1892	W. H. VREELAND,	1895
CORNELIUS SHEPARD,	1892	†C. R. P. FISHER,	1895
*CHARLES H. DUNHAM,	1892	GEORGE R. KENT,	1896
C. H. ANDRUS,	1892	WILLIAM J. CHANDLER,	1896
HENRY MITCHELL,	1892	EDWARD J. ILL,	1896
HENRY C. COOKE,	1892	GEORGE H. BALLERAY,	1896
I. W. CONDIT,	1892	J. A. COLES,	1896
JOHN STIGER,	1892	WILLIAM CREVELING,	1896
W. B. JOHNSON,	1892	GEORGE BAYLES,	1896
H. G. WAGNOR,	1892	DANIEL M. SKINNER,	1896
SIDNEY STRAILEY,	1892	HERMAN C. BLEYLE,	1896
JOHN H. GRIFFITH,	1892	T. H. TOMLINSON,	1896
ALONZO PETTIT,	1893	WILLIAM H. MCGEE,	1896
E. B. SILVERS,	1893		

* Dead.

† Resigned.

Members of District Medical Societies

REPRESENTED AT THE

ANNUAL MEETING, 1896.

ATLANTIC COUNTY.

(District Society organized June 7, 1880).

P. Marvel, *Pres.*,	*Atlantic City*	H. James,	*May's Landing*
W. B. Stewart, *V.-Pres.*,	"	E. H. Madden,	*Absecon*
T. Reed, *Sec'y & Treas.*,	"	E. L. Reed,	*Atlantic City*
Walter Reynolds, *Rep.*,	"	E. Marvel,	"
Boardman Reed,	"	J. B. Thompson,	"
B. C. Pennington,	"	Ed. North,	*Hammonton*
T. H. Boysen,	*Egg Harbor City*	E. A. Reilly,	*Atlantic City*
J. A. Joy,	*Atlantic City*	W. Powell,	"
E. C. Chew,	"	F. Bennett,	"
A. D. Cuskaden,	"	P. Shellman,	*Bakersville*

No. Members, 20.

BERGEN COUNTY.

(District Society reorganized February 28, 1894.)

H. M. Banks, *Pres.*,	*Englewood*	J. T. De Mund,	*Ridgewood*
L. B. Parsells, *V.-Pres.*,	*Closter*	William L. Vroom,	"
D. St. John, *Treas.*,	*Hackensack*	H. C. Neer,	*Park Ridge*
D. A. Currie, *Sec'y*,	*Englewood*	Eugene Jehl,	"
H. C. Elsing, *D.R.*,	*Ridgefield Park*	Samuel J. Zabriskie,	*Westwood*
M. S. Ayres,	*Fairview*	J. W. Terry,	*Englewood*
G. H. McFadden,	*Hackensack*	J. A. Wells,	"
A. L. Vandewater,	"	H. M. Banks,	"
Edgar K. Conrad,	"	J. W. Proctor,	"
Charles D. Brooks,	"	James E. Cosgrove,	"

J B. W. Lansing, *Tenafly*
John J. Haring, "
Sam'l E. Armstrong, *Rutherford*
Joseph Hüger, *Fort Lee*
J. Talmage Wyckoff, *Leonia*
Charles Calhoun, *Rutherfora*

No. Members, 26.

BURLINGTON COUNTY.

(Society organized May 19, 1829. Meets third Tuesday in Jan., April, June and Oct.)

J. H. Pugh, *Pres. and Censor*, *Burlington*
B. W. Macfarland, *V.-Pres.*, *Bordentown*
A. W. Taylor, *Sec'y*, *Beverly*
E. Hollingshead, *Tr.*, *Pemberton*
F. S. Janney, *Historian*, *Riverton*
Joseph Stokes, *Rep.*, *Moorestown*
W. E. Hall, *Censor*, *Burlington*
Alex. Marcy, " *Riverton*
W. P. Melcher, *Mount Holly*
F. A. Gauntt, *Burlington*
N. N. Stokes, *Moorestown*
F. G. Stoud, "
A. E. Conrow, "
W. H. Shipps, *Bordentown*
Irene D. Young, *Bordentown*
Franklin Gauntt, *Burlington*
W. C. Parry, *Mount Holly*
R. H. Parsons, "
A. H. Small, *Riverside*
T. S. Lippincott, "
Emma P. Weeks, "
Lewis L. Sharp, *Medford*
J. Reeve, "
J. D. Janney, *Cinnaminson*
Wm. L. Martin, *Rancocas*
T. T. Price, *Tuckerton*
David Baird, Jr., *Florence*
J. E. Dubell, *Columbus*
I. W. Hollingshead, *Pemberton*

CONTRIBUTING MEMBER.

William Martin, *Bristol, Pa.*

HONORARY MEMBERS.

E. P. Townsend, *Billings, Mont.*
Chas. P. Noble, *1637 N. Broad St., Phila., Pa.*
Chas. H. Thomas, *1633 Locust St., Phila., Pa.*

No. Members, 29.

CAMDEN COUNTY.

(Society organized August 14, 1846. Meets second Tuesday in Feb., May and Nov.)

J. E. Hurff, *Pres.*, *Blackwood*
D. M. Stout, *V.-Pres.*, *Berlin*
B. S. Lewis, *Sec'y*, *Camden*
John G. Doran, *Treas.*, "
William H. Iszard, *Camden*
Henry Jarrett, "
Chas. H. Jennings, *Merchantville*
Wm. B. Jennings, *Haddonfield*

Daniel Strock, *Rep.*,	*Camden*	Wm. S. Jones,	*Camden*
Henry H. Shirk, *Hist.*,	*Stockton*	Wm. W. Kain,	"
H. E. Branin, *Censor*,	*Blackwood*	Wm. H. Kensinger,	*Stockton*
Alex. Marcy, "	*Riverton*	Grant E. Kirk,	*Camden*
H. A. M. Smith, "	*Gloucester*	John F. Leavitt,	"
J. R. Stevenson, "	*Haddonfield*	Adrinette Le Fevre,	*Blackwood*
H. G. Taylor, "	*Camden*	A. H. Lippincott,	*Camden*
Joseph S. Baer,	"	Frederick W. Marcy,	"
Wilson G. Bailey,	"	John W. Marcy,	*Merchantville*
Philip W. Beale,	"	Alexander Mecray,	*Camden*
Dowling Benjamin,	"	Paul Mecray,	"
John K. Bennett,	*Gloucester*	Alexander McAlister,	"
Duncan W. Blake,	"	Joseph L. Nicholson,	"
Orange W. Braymer,	*Camden*	Howard F. Palm,	"
Sylvan G. Bushey,	"	Wm. R. Powell,	"
Robert Casperson,	"	Edward Phelan,	"
Nehemiah Davis,	"	Sophia Presley,	"
William A. Davis,	"	James M. Ridge,	"
Eugene E. De Grofft,	"	Edward A. Y. Schellinger,	"
Clarence B. Donges,	"	William Schafer,	"
John W. Donges,	"	Chas. H. Shivers,	*Haddonfield*
Joel W. Fithian,	"	James G. Stanton,	*Camden*
Edmund L. B. Godfrey,	"	John F. Stock,	"
Onan B. Gross,	"	Wm. A. Westcott,	*Berlin*
J. J. Haley,	*Gloucester*	Maximilian West,	*Camden*
Conrad G. Hoell	*Camden*	Joseph H. Wills,	"
Frank L. Horning,	"	William P. Wingender,	"
William H. Ireland,	"	E. B. Woolston,	*Marlton*

HONORARY MEMBERS.

J. Gilbert Young, *Phila., Pa.* J. Orlando White, *Camden*
John F. Walsh, *Camden.*

No. Members, 64.

CAPE MAY COUNTY.

(Society organized March 12, 1885. Meets first Tuesday in April and Nov.)

Eugene Way, *Pres.*,	*Dennisville*	James Mecray,	*Cape May*
W. A. Lake, *V.-P.*,	*Green Creek*	I. M. Downs,	*Court House*
Julius Way, *Sec'y and Rep.*,	*Court House*	B. T. Abbott,	*Tuckahoe*
		Joseph Marshall,	"

R. Marshall, *Treas.*,	*Tuckahoe*	Jonathan Leaming,	*Court House*
V. M. D. Marcy, *Censor*,	*Cape May*	Coleman Leaming,	"
Emlen Physick, "	"	A. L. Leach,	*Cape May*
W. S. Leaming, "	"		

HONORARY MEMBERS.

C. M. Gaudy,	*U. S. Army*	J. H. Ingraham,	*China*

No. Members, 14.

CUMBERLAND COUNTY.

(Society organized Dec. 8, 1818.)

D. H. Oliver, *Pres.*,	*Bridgeton*	Ed. H. Bidwell,	*Vineland*
S. M. Snyder, *V.-P.*,	*Greenwich*	Chas. W. Wilson,	"
Hamilton Mailly, *Sec'y*,	*Bridgeton*	John S. Halsey,	"
Jos. Tomlinson, *Treas.*,	"	N. H. Burt,	*Ocean City*
J. C. Applegate, *Rep.*,	"	L. L. Hand,	*Leesburg*
M. K. Elmer,	"	Wm. L. Newell,	*Millville*
J. R. C. Thompson,	"	W. H. C. Smith,	"
T. J. Smith,	"	C. Jerome Massinger,	"
Joseph Sheppard,	"	Ephraim Bateman,	*Cedarville*
Ellsmore Stites,	"	Frank Bateman,	"
Alfred Cornwell,	"	A. R. Judson,	*Newport*
H. W. Elmer,	"	E. B. Sharp,	*Roadstown*
S. M. Wilson,	"	A. W. Sullivan,	*Shiloh*
O. H. Adams,	*Vineland*	J. R. Dare,	*Deerfield*
Waldo F. Sawyer,	"	S. T. Day,	*Port Morris*
Chas. R. Wiley,	"	W. D. Straughn,	*Snow Hill, Md.*

HONORARY MEMBER.

J. S. Whitaker, *Millville, N. J.*

ASSOCIATE MEMBERS.

Chas. O. Oliver, *1507 Locust st.*, *Philadelphia*	J. M. Barton, *1327 Spruce st.*, *Philadelphia*
W. E. Ashton, *2011 Walnut st.*, *Philadelphia*	B. C. Herst, *1821 Spruce st.*, *Philadelphia*
W. W. Keen, *1729 Chestnut st.*, *Philadelphia*	Theoph. Pavin, *1626 Spruce st.*, *Philadelphia*
P. B. Keyser, *1832 Arch st.*, *Philadelphia*	

No. Members, 32.

ESSEX COUNTY.

(Society Organized June 8, 1816. Annual meeting first Tuesday in April.)

Edward J. Ill, *Pres.*, *Newark*
T. Y. Sutphen, *V.-Pres.*, "
Archibald Mercer, *Sec'y*, "
Chas. D. Bennett, *Treas.*, "
Theo. W. Corwin, *Rep.*, "
William B. Arnold, *Orange*
Charles H. Bailey, *Bloomfield*
Aaron K. Baldwin, *Newark*
George Bayles, *Orange*
Frederick W. Becker, *Newark*
Herman C. Bleyle, "
John H. Bradshaw, *Orange*
Rudolph Braun, *Newark*
Wm. M. Brien, *Orange Valley*
James S. Brown, *Montclair*
John D. Brumley, *Newark*
Walter R. Bruyere, "
Edwin L. Burns, "
Robert L. Burrage, "
Carl Büttner, *Orange*
William E. Carroll, *Newark*
Levi W. Case, *Montclair*
Wm. J. Chandler, *Sonth Orange*
Robert W. Chapman, *Newark*
Albion C. Christian, *Irvington*
J. Henry Clark, *Newark*
Henry L. Coit, "
Everit P. Courtright, "
H. Bedell Crane, "
Mathias S. Crane, "
Wm. H. K. Davis, *East Orange*
John Dennis, *Newark*
Richard G. P. Dieffenbach, "
Daniel M. Dill, "
William S. Disbrow, "
Arthur C. Dougherty, "
John L. Duryee, *Newark*
Wells P. Eagleton, "
David J. Edwards, "
Thomas P. Edwards, "
Julius Egge, "
David E. English, *Millburn*
James R. English, *Irvington*
Thomas D. English, *Newark*
Joseph Fewsmith, "
Thomas S. Fitch, *Orange*
Paul Fitzgerald, *Newark*
Richard P. Francis, *Montclair*
Rich'd D. Freeman, *Orange Valley*
Albert Frey, *Newark*
Ruel S. Gage, "
Robert F. Gillin, "
Herman A. Glatzmayer, "
William Glatzmayer, "
William B. Graves, *East Orange*
Thomas N. Gray, "
Charles W. Hagen, *Newark*
Joseph F. Hager, "
Frederick W. Hagney, "
Albert J. Hahn, "
Eleanor Haines, "
Levi W. Halsey, *Montclair*
Edward H. Hamill, *Newark*
Charles W. Harrison, "
Thomas N. Harvey, *Orange*
E. Zeh Hawkes, *Newark*
Joseph H. Haydon, "
John Hemsath, "
Hugh C. Hendry, "
Henry T. Herold, "
Herman C. H. Herold, "
Peter V. P. Hewlett, '

Livingston S. Hinckley, *Newark*
James S. Hoffman, "
Edgar Holden, "
L. Eugene Hollister, "
William H. Holmes, *Orange*
John C. Houston, *Newark*
Charles L. Ill, "
Elias Iliff, "
Frederick C. Jacobson, "
Jotham C. Johnson, "
William M. Johnson, "
George R. Kent, "
Charles J. Kipp, "
Jos. M. W. Kitchen, *East Orange*
Francis E. Knowles, *S. Orange*
Henry A. Kornemann, *Newark*
Charles Lehlbach, "
Jesse D. Lippincott, "
Herbert W. Long, "
Thomas W. Loweree, "
Calista V. Luther, "
Ernest M. Lyon, "
John H. J. Love, *Montclair*
Floy McEwen, *Newark*
William H. McKenzie, "
James M. Maghee, *Orange*
William H. Martland, *Newark*
Henry E. Mathews, *Orange*
Sarah R. Mead, *Newark*
Franklin L. Meyer, "
Andrew M. Mills, "
Winthrop D. Mitchell, *E. Orange*
Clement Morris, *Newark*
Frederick C. Nadler, "
Albert B. Nash, "
Emanuel Newman, "
Richard C. Newton, *Montclair*
Joseph D. Osborne, *Newark*
Edward E. Peck, *Caldwell*
Samnel H. Pennington, *Newark*
William Pennington, *Irvington*
Thomas F. Phelan, *Orange*
William Pierson, "
Robert C. Potter, *Newark*
Henry A. Pulsford, *South Orange*
John M. Rand, *Newark*
Charles D. Randall, "
William Rankin, Jr, "
Joshua W. Read, "
Phillip Ricord, "
Charles D. Ripley, "
Samuel E. Robertson, "
Benjamin A. Robinson, "
Manning N. Robinson, "
William D. Robinson, *E. Orange*
Robert H. Rogers, *Newark*
George W. Rolerfort, "
Mefford Runyon, *South Orange*
Charles A. Schureman, *Newark*
Emanuel Schwartz, "
Edward Sealy, "
William F. Seidler, "
Marco Seidman, "
William F. Shiek, "
M. Herbert Simmons, *Orange*
Daniel M. Skinner, *Belleville*
Anna L. Smith, *Montclair*
E. Fayette Smith, *Newark*
D. Winans Smith, "
Lott Southard, "
Edward Staehlin, "
Robert G. Stanwood, "
Joseph W. Stickler, *Orange*
Joseph S. Sutphen, *Newark*
Robert M. Sutphen, "
J. Francis E. Tetreault, *Orange*
Frederick W. Thum, *Newark*
Henry A. Towle, "

Sidney A. Twinch, *Newark*
Charles F. Underwood, "
M. H. Cash Vail, *Vailsburg*
Geo. A. Van Wagenen, *Newark*
Benjamin A. Vernooy, "
George N. Wait, "
David L. Wallace, "
Henry J. F. Wallhauser, "
Aaron C. Ward, "
Arthur Ward, "
Edwin M. Ward, *Boomfield*
Leslie D. Ward, *Newark*
William S. Ward, "
William H. Warren, "
Walter S. Washington, *Newark*
Frederick Webner, "
William H. White, *Bloomfield*
Henry B. Whitehorn, *Verona*
Albert Wickham, *Newark*
W. Stockton Wilson, "
Charles H. Winans, *Belleville*
Edward E. Worl, *Newark*
James A. Wormley, "
James T. Wrightson, "
Charles Young, "
Joseph C. Young, "
Charles M. Zeh, "

No. Members, 177.

GLOUCESTER COUNTY.

(Society organized December, 1818).

James Hunter, *Pres.*, *Westville*
J. G. Edwards, *V.-Pres.*, *Williamstown*
Geo. E. Reading, *Sec'y and Treas.*, *Woodbury*
Chas. S. Heritage, *Rep.*, *Glassboro*
Luther M. Halsey, *Censor*, *Williamtown*
H. H. Clark, *Censor*, *Woodbury*
H. A. Stout, " *Wenonah*
H. G. Buckingham, *Clayton*
Samuel F. Ashcraft, *Mullica Hill*
Howard A. Wilson, *Woodbury*
M. Jones Luffbary, *Glassboro*
Eugene Z. Hillegrass, *Mantua*
Eugene T. Oliphant, *Bridgeport*
Henry B. Diverty, *Woodbury*
George C. Laws, *Paulsboro*
George W. Bailey, *Wenonah*
Thomas Lee, *Woodbury*
Joseph B. Roe, "
P. E. Stilwagon, *Bridgeport*
Samuel F. Stanger, *Harrisonville*
Henry C. Clark, *Woodbury*
Cyrus B. Phillips, *Hurffville*

HONORARY MEMBERS.

James Tyson, *Philadelphia*
Charles S. Turnbull, "
Hobart A. Hare, "
Mordecai Price, "
Lawrence F. Flick, "
Eugene E. DeGrofft, *Camden*
Wm. H. Iszard, "
Chas. McIlvaine, *Haddonfield*
Alex. McAllister, *Camden*

No. Members, 22.

HUDSON COUNTY.

(Society organized October 1, 1851.)

C. F. Kyte, *Pres.*,	*Jersey City*	F. D. Gray,	*Jersey City*
J. M. Rector, *Sec'y*,	"	C. Gilchrist,	*Hoboken*
H. H. Brinkerhoff, Jr., *Treas.*,	"	S. A. Helfer,	"
J. A. Exton, *Rep.*,	*Arlington*	J. P. Henry,	*Jersey City*
U. Allen,	*Jersey City*	C. D. Hill,	"
H. Allers,	*Harrison*	M. Hecht,	*West Hoboken*
R. Belmer,	*Jersey City*	P. Hoffman, Jr.,	*Jersey City*
W. S. Boyd,	"	R. Inglis,	"
E. L. Bull,	"	R. Keuhne,	"
O. R. Blanchard,	"	A. J. Kirsten,	"
H. J. Bogardus,	"	M. Lampson,	"
L. Baumann,	"	H. H. Lynch,	"
J. J. Broderick,	"	C. K. Law,	"
H. H. Burnette,	*Hoboken*	G. E. McLaughlin,	"
F. M. Corwin,	*Bergen Point*	J. J. McLean,	"
C. W. Cropper,	*Jersey City*	J. D. McGill,	"
B. P. Craig,	"	E. G. Marks,	*Arlington*
R. F. Chabert,	*Hoboken*	J. C. Parsons,	*Jersey City*
J. E. Corrigan,	*Jersey City*	W. Pocock,	*Bayonne*
T. R. Chambers,	"	R. M. Petrie,	*Jersey City*
G. K. Dickinson,	"	I. N. Quimby,	"
L. F. Donohue,	*Bayonne*	J. H. Rosenkrantz,	*Hoboken*
Alex. Dallas,	"	J. C. Rooney,	*Guttenberg*
E. K. Dunkel,	*Jersey City*	M. J. Smith,	*Jersey City*
Benj. Edge,	"	H. Spence,	"
J. Faber,	"	G. H. Sexsmith,	*Bayonne*
J. R. Everitt,	"	H. M. Smith,	*Jersey City*
J. F. Finn,	"	F. R. Searles,	*Bayonne*
W. F. Faison,	"	W. P. Watson,	*Jersey City*
L. F. Gordon,	"	C. Wienges,	"

No. Members, 60.

HUNTERDON COUNTY.

(Society organized June 12, 1821.)

W. E. Cornog, *Pres.*,	*Sergeantsville*	John H. Fritz,	*Stockton*
O. H. Sproul, *Sec'y*,	*Flemington*	F. S. Grim,	*Baptisttown*
I. S. Cramer, *Treas.*,	"	F. L. Johnson,	*Stanton*
		M. D. Night,	*Clinton*

Geo. N. Best, *Rep.*,	*Rosemont*	F. W. Larison,	*Lambertville*
N. B. Boileau,	*Jutland*	E. D. Leidy,	*Frenchtown*
W. E. Berkaw,	*Annandale*	W. R. Little,	*Bloomsbury*
W. S. Creveling,	*Valley*	Peter McGill,	*Lambertville*
A. M. Cooper,	*Point Pleasant, Pa.*	A. B. Nash,	*Frenchtown*
E. W. Closson,	*Lambertville*	Geo. L. Romain,	*Lambertville*
E. K. Deemy,	*Frenchtown*	Jos. W. Silvara,	*Ringoes*
Carl R. Darnell,	*Milford*	Jas. W. Snowball,	*Flemington*
John H. Ewing,	*Flemington*		

HONORARY MEMBERS.

W. D. Wolverton,	*U. S. A.*	M. Abel,	*Providence, R. I.*

No. Members, 24.

MERCER COUNTY.

(Society organized July 24, 1848.)

B. W. McGalliard, *Pres.*,	*Trenton*	Lyman Levitt,	*Trenton*
C. R. Burroughs, *V.-Pres.*,	"	T. H. McKenzie,	"
J. Bruyere, *Sec'y*,	"	C. H. McIlwaine,	"
William Elmer, *Treas.*,	"	H. G. Norton,	"
G. N. J. Sommer, *Rep.*,	"	N. B. Oliphant,	"
C. F. Adams,	"	Wm. Rice,	"
Elmer Barwis,	"	E. H. Rogers,	"
H. M. Beatty,	"	R. R. Rogers, Jr.,	"
C. P. Britton,	"	R. R. Rogers, Sr.,	"
A. T. Bruyere,	"	G. Schoening,	"
F. V. Cantwell,	"	George Silvers,	*Hightstown*
M. E. Caminade,	"	J. B. Shaw,	*Trenton*
W. A. Clark,	"	C. Shepherd,	"
H. B. Costill,	"	I. M. Shepherd,	"
C. J. Craythorn,	"	E. B. Skellinger,	"
A. H. Dey,	"	Wm. McD. Struble,	"
E. L. Dickinson,	"	W. D. Stevenson,	"
J. C. Felty,	"	G. E. Titus,	*Hightstown*
G. H. Franklin,	*Hightstown*	L. D. Tompkins,	*Trenton*
E. S. Hawk,	*Trenton*	W. B. Van Duyn,	"
J. S. Jamieson,	"	J. W. Ward,	"
Mozart Jenkins,	"	David Warman,	"
E. W. Johnson,	"	H. M. Weeks,	"

H. S. Johnson, *Lawrenceville*
Edward Kelly, *Trenton*
John Kirby, "
W. S. Lalor, "
C. B. Levitt, "
J. H. Wikoff, *Princeton*
Floyd Wilbur, *Hightstown*
Wm. Wilbur, "
A. Woodward, "

No. Members, 55.

MIDDLESEX COUNTY.

(Society organized June 16, 1816. Meets third Wednesday, Jan., Apr., July and Oct.)

A. L. Smith, *Pres.*, *N. Brunswick*
J. G. Wilson, *V.-P.*, *Perth Amboy*
D. Stephens, *Sec'y*, *N. Brunswick*
D. C. English, *Treas.*, "
A. V. N. Baldwin, *Rep.*, *New Brunswick*
H. R. Baldwin, "
S. V. D. Clark, "
F. M. Donohue, "
John Helm, "
C. M. Slack, "
C. H. Voorhees, "
N. Williamson, *New Brunswick*
C. H. Andrus, *Metuchen*
A. C. Hunt, "
E. B. Dana, "
Wm. V. McKenzie, "
F. E. Riva, *Milltown*
A. Treganowan, *South Amboy*
J. C. Holmes, *Cranbury*
H. C. Lymmes, "
J. L. Suydam, "
J. J. Bissett, *Paterson*

No. Members, 22.

MONMOUTH COUNTY.

(Society organized July 16, 1816.)

D. M. Forman, *Sec'y*, *Freehold*
A. T. Applegate, *Englishtown*
J. E. Arrowsmith, *Keyport*
W. B. Beach, *Eatontown*
Alex. Betts, *Red Bank*
H. G. Cooke, *Holmdel*
J. E. Cooper, *Shrewsbury*
V. M. Disbrow, *Farmingdale*
Edward Field, *Red Bank*
J. B. Goodenough, *Long Branch*
D. D. Hendrickson, *Middletown*
H. A. Hendrickson, *Atlantic Highlands*
W. M. Hepburn, *Freehold*
Wm. R. Kinmouth, *Farmingdale*
I. S. Long, *Freehold*
J. G. Mainard, "
Sarah F. McIntosh, *Asbury Park*
Geo. W. McMillan, *Turkey*
Henry Mitchell, *Asbury Park*
Henry Neafie, *Freehold*
F. C. Price. *Imlaystown*
P. B. Pumyea, *Allentown*
Edgar Roberts, *Keyport*
Edward F. Taylor, *Middletown*
J. W. Taylor, *Long Branch*
Chas. H. Thompson, *Belmar*
Fred. Thompson, "

A. J. Jackson,	*Matawan*	Wm. W. Trout,	*Spring Lake*
Samuel Johnson,	*Ocean Grove*	Wm. B. Warner,	*Red Bank*
Harris P. Johnson,	*Allentown*	Geo. T. Welch,	*Passaic*
C. Knecht,	*Matawan*	Geo. F. Wilbur,	*Asbury Park*

HONORARY MEMBERS.

A. V. Conover,	*Freehold*	Robert Laird,	*Manasquan*

No. Members, 35.

MORRIS COUNTY.

(Society organized June 1, 1815.)

H. V. Day, *Pres.*,	*Bloomingdale*	G. H. Foster,	*Rockaway*
C. N. Miller, *V.-Pres.*,	*Flanders*	W. S. Foster,	*Flanders*
L. Farrow, *Sec'y.*	*Middle Valley*	Eliot Gorton,	*Morris Plains*
J. S. Stiger, *Treas.*,	*Mendham*	H. A. Henriques,	*Morristown*
E. P. Cooper, *Rep.*,	*Troy Hills*	H. W. Kice,	*Port Oram*
N. H. Adsit,	*Succasunna*	A. A. Lewis,	*Morristown*
C. Anderson,	*Madison*	P. S. Mallon,	*Morris Plains*
P. C. Barker,	*Morristown*	A. A. Mackwithey,	*Pompton*
L. T. Bishop,	"	F. W. Owen,	"
G. A. Becker,	"	S. Pierson,	"
A. E. Carpenter,	*Boonton*	T. P. Prout,	*Morris Plains*
L. W. Case,	*Montclair, Essex Co.*	S. H. Reed,	*Madison*
I. W. Condict,	*Dover*	Wm. H. Risk,	*Summit*
A. W. Condict,	"	J. B. Risk,	"
R. L. Cook,	"	J. G. Ryerson,	*Boonton*
T. R. Crittenden,	"	I. H. Stiger,	*Mendham*
G. O. Cummins,	"	E. Sutton,	*German Valley*
Harris Day,	*Chester*	G. M. Swaim,	*Chatham*
G. S. DeGroot,	*Mendham*	J. L. Taylor,	*Mount Arlington*
J. A. Douglas,	*Morristown*	J. Walters,	*Port Oram*
B. D. Evans,	*Morris Plains*	C. Wigg,	*Boonton*
Jos. R. Farrow,	*German Valley*	W. J. Wolfe,	*Chatham*
F. W. Flagge,	*Rockaway*		

HONORARY MEMBER.

C. Y. Swan, *Morristown.*

No. Members, 45.

OCEAN COUNTY.

W. B. Searles, *Sec'y*,	*Lakewood*	R. L. Disbrow,	*Toms River*
I. H. Platt,	"	E. C. Disbrow,	"
W. H. Hall,	"	I. C. Schurman,	"
O. A. Wood,	*Forked River*	O. W. Budlong,	*Belford*
I. W. Kirk,	*Manchester*		

No. Members, 9.

PASSAIC COUNTY.

(Society organized July 14, 1844. Meetings, monthly on Third Tuesday.)

J. H. Banta, *Pres.*,	*Paterson*	J. L. Leal,	*Paterson*
P. A. Harris, *V.-Pres.*,	"	M. A. Mackintosh,	"
C. H. Scribner, *Sec'y*,	"	B. C. Magennis,	"
J. T. Gillson, *Treas.*,	"	E. J. Marsh,	"
J. M. Stewart, *Rep.*,	"	A. F. McBride,	"
G. H. Balleray, *Censor*,	"	E. S. McClellan,	"
W. K. Newton, "	"	J. C. McCoy,	"
W. B. Johnson, "	"	J. R. Merrill,	"
F. E. Agnew,	"	S. R. Merrill,	"
J. W. Atkinson,	"	E. B. Morgan,	"
J. S. Bibby,	"	C. F. W. Meyers,	"
W. Blundell,	"	R. Neer,	"
D. T. Bowden,	"	W. Neer,	"
J. A. Browne,	"	T. F. O'Grady,	"
W. H. Carroll,	*Passaic*	H. Parke,	"
Wm. S. Colfax,	*Pompton*	T. L. Paton,	"
R. M. Curts,	*Paterson*	J. P. Paxton,	"
S. De Jager,	"	A. W. Rogers,	"
F. F. C. Demarest,	*Passaic*	B. H. Rogers,	"
E. W. Doty,	*Paterson*	J. W. Smith,	"
George Fischer,	"	Wm. R. Smith,	*Little Falls*
Thos. J. Fitzmaurice,	"	M. J. Synott,	"
Wm. Flitcroft,	"	P. H. Terhune,	*Passaic*
O. V. Garnett,	"	R. H. Terhune,	"
W. W. Gilson,	"	C. Terriberry,	*Paterson*
W. S. Green,	"	G. W. Terriberry,	"
J. F. Hadley,	*Passaic*	S. Van Dalsen,	"
J. H. Henggeler,	*Paterson*	C. S. Van Riper,	"

Albert D. Jousset,	*Paterson*	C. Van Riper,	*Passaic*
T. J. Kane,	"	F. Vigna,	*Paterson*
E. A. Keeler,	*Little Falls*	J. W. Williams,	"
H. Kip,	*Paterson*		

HONORARY MEMBER.

J. C. Herrick, *Colorado Springs, Col.*

No. Members, 63.

SALEM COUNTY.

(Society organized May 4, 1880.)

W. H. Carpenter, *Pres.*,	*Salem*	W. T. Good, *Censor*,	*Quinton*
G. W. H. Fitch, *V.-P.*,	*Daretown*	W. H. James, "	*Pennsville*
Henry Chavanne, *Sec'y and Treas.*,	*Salem*	W. S. Patrick,	*Woodstown*
		L. L. Glover,	*Haddonfield*
W. L. Ewen, *Rep.*,	*Alloway*	N. S. Hires,	*Camden*
F. Bilderback, *Censor*,	*Salem*	H. T. Johnson,	*Pedricktown*

HONORARY MEMBERS.

B. F. Shimwell,	*Philadelphia*	Prof. H. A. Hare,	*Philadelphia*
H. M. Christian,	"	Geo. Friebes,	"
E. E. De Grofft,	*Camden*	J. F. Hamilton,	"
Chas. E. Turnbull,	*Philadelphia*	R. M. Davis,	*Salem*
Mordecai Price,	"	Capt. Chas. McIlvain,	*Haddonfield*
E. B. Gleason,	"		

No. Members, 11.

SOMERSET COUNTY.

(Society organized May, 1816).

H. G. Wagoner, *Pres.*,	*Somerville*	T. H. Flynn,	*Somerville*
S. O. B. Taylor, *V.-P.*,	*Millstone*	C. R. P. Fisher,	*Bound Brook*
J. P. Hecht, *Cor. Sec'y*,	*Raritan*	B. B. Matthews,	"
L. T. Reed, *Rec.* "	*Somerville*	F. A. Wild,	"
W. H. Merrell, *Treas.*,	*South Branch*	A. Nelson,	*Neshanic*
		W. B. Ribble,	*East Millstone*
A. L. Stillwell, *Rep.*,	*Somerville*	J. H. Cooper,	*Middlebush*
Mary E. Gaston,	"	P. J. Leglio,	*North Plainfield*
W. J. Swinton,	"	H. V. D. Davis,	*North Branch*
J. F. McWilliam,	"		

No. Members, 18.

SUSSEX COUNTY.

(Society Organized August 22, 1829.)

S. Voorhees, *Pres.*,	*Newton*	Ed. Dalrymple,	*Branchville*
L. C. Burd, *V.-Pres.*,	*Ogdensburg*	J. C. Moore,	*Deckertown*
Sidney Strailey, *Sec'y*,	*Andover*	H. Van Gaasbeck,	"
E. Morrison, *Treas*,	*Newton*	J. B. Pellet,	*Hamburg*
J. S. Wolfe,	*Coleville*	J. P. Couse,	"
J. L. Hetzer,	*Stillwater*	Martin Cole,	*Hainsville*
L. D. Miller,	*Newton*	John Strader,	*Lafayette*
P. N. Jacobus,	"	J. N. Miller,	*Layton*
Bruno Hood,	"	C. K. Davison,	*Stanhope*
B. W. Ferguson,	*Beemerville*	T. Andress,	*Sparta*
Joseph Hedges,	*Branchville*	Carlos Allen,	*Vernon*
J. C. Price,	"	J. F. McCloughan,	*Swartswood*

HONORARY MEMBER.

E. Schumo, *Branchville.*

No. Members, 24.

UNION COUNTY.

(Society organized June 7, 1869.)

Alonzo Pettit,	*Elizabeth*	E. W. Hedges,	*Plainfield*
Thomas L. Hough,	"	A. Manning,	"
Victor Mravlag,	"	W. H. Murray.	"
Thomas N. McLean,	"	J. H. Carman,	"
W. A. M. Mack,	"	William Gale,	*Westfield*
A. Q. Donovan,	"	J. B. Harrison,	"
N. L. Wilson,	"	J. A. Coles,	*Scotch Plains*
E. R. O'Reilly,	"	F. W. Westcott.	*Fanwood*
Edgar B. Grier,	"	F. M. Corwin,	*Bergen Point*
W. F. Turner,	"	Daton E. Decker,	*Woodbridge*
Theo. F. Livengood,	"	S. J. Keefe,	*Elizabeth*
G. H. Bridgman,	"	R. J. Montfort,	"
James S. Green,	*Elizabeth*	A. Stern,	*Elizabeth*
James R. English, Jr.,	*Irvington*	J. P. Reilly,	"
J. K. McConnell,	*Cranford*	T. J. Jackson,	*Springfield*
D. W. C. Hough,	*Rahway*	F. C. Ard,	*Plainfield*
W. U. Selover,	"	B. Van D. Hedges,	"

E. B. Silvers,	*Rahway*	E. J. Westfall,	*Rahway*
W. E. Cladek,	"	Thomas Dolan,	*Elizabeth*
H. Page Hough,	"	M. L. Clowson,	*Plainfield*
John M. Randolph,	"	R. R. Sinclair,	*Westfield*
J. B. Probasco,	*Plainfield*	W. F. Gaston,	*Plainfield*
T. H. Tomlinson,	"	A. H. Scofield,	*Westfield*
M. B. Long,	"	R. B. Whitehead,	*Elizabeth*
G. W. Endicott,	"	C. Wilbur McConnell,	*Cranford*

No. Members, 50.

WARREN COUNTY.

(Society organized February 15, 1826. Annual meeting first Tuesday in June.)

C. B. Smith, *Pres.*,	*Washington*	Isaac Barber,	*Phillipsburg*
G. W. Cummins, *V.-P.*,	*Belvidere*	J. M. Reese,	"
Wm. J. Burd, *Sec'y*,	*Belvidere*	Wm. Kline, Jr.,	"
W. H. MeGhee. *Treas.*,	"	Wm. C. Albertson,	*Belvidere*
J. H. Griffith, *Rep.*,	*Phillipsburg*	L. C. Osmun,	*Washington, D. C.*
John C. Johnson,	*Blairstown*	L. B. Hoagland,	*Oxford*
H. O. Carhart,	"	B. W. Hoagland,	"
John S. Cook,	*Hackettstown*	G. O. Tunison,	"
Alva C. Van Syckle,	"	Frank C. Curtis,	*Stewartsville*
Louis C. Osmun,	"	M. N. Armstrong,	*Newton*
William Stites,	*Washington*		

No. Members, 21.

SUMMARY.

Atlantic,	20	Monmouth,	35
Bergen,	26	Morris,	45
Burlington,	29	Ocean,	9
Camden,	64	Passaic,	63
Cape May,	14	Salem,	11
Cumberland,	32	Somerset,	18
Essex,	177	Sussex,	24
Gloucester,	22	Union,	50
Hudson,	60	Warren,	21
Hunterdon,	24		
Mercer,	55		821
Middlesex,	22		

TRANSACTIONS

OF THE

MEDICAL SOCIETY OF NEW JERSEY.

ONE HUNDRED AND THIRTIETH ANNUAL MEETING.

ASBURY PARK, JUNE 23 AND 24, 1896.

FIRST DAY—MORNING SESSION.

The President, Dr. Elmer, called the meeting to order at eleven o'clock A. M., in the Assembly Room of Hotel Brunswick, and the exercises were opened with prayer by the Rev. Howard T. Widdemer.

Dr. William A. Clark was appointed on the Committee on Credentials, which Committee reported as follows:

The Committee on Credentials would report that it had examined the certificates of annual delegates received from the Secretaries of the District Medical Societies, and have prepared the roll which the Secretary will read. The certificates were found to be in accordance with the provisions of the By-Laws. All the district societies, excepting Ocean, have presented certificates.

The Committee would also present the following nominations for Permanent Delegates:

Essex, George R. Kent, George Bayles, William J. Chandler, Daniel M. Skinner, Edward J. Ill and Herman C. Bleyle; Passaic, George H. Balleray; Union, T. H. Tomlinson and J. A. Coles; Hunterdon, William S. Creveling; Warren, Wm. H. McGee.

The Committee believe these nominations to be in accordance with the provisions of the By-Laws.

WM. PIERSON.
ARCHIBALD MERCER.
WM. A. CLARK.

The report was accepted.

The roll of annual delegates as reported, and of other members of the Society was called :

Atlantic—B. C. Pennington,* W. B. Stewart,* E. A. Reilly.* Members, 20.

Bergen—D. A. Currie, D. St. John, J. W. Proctor,* L. B. Parsell,* W. L. Vroom.* Members, 27.

Burlington—A. W. Taylor,* B. W. Macfarland, G. Hollingshead, W. Parry,* F. G Stroud. Members, 29.

Camden—W. H. Iszard, Jos. E. Hurff,* A. McAllister, A. H. Lippincott, C. H. Jennings, O. W. Braymer, D. Benjamin, J. F. Leavitt, J. G. Busby. Members, 64.

Cape May—R. Marshall,* B. F. Abbott,* E. Way,* U. S. Leaming.* Members, 14.

Cumberland—D. H. Oliver, E. Stites, A. W. Sullivan, A. R. Judson, Joseph Sheppard.* Members, 34.

Essex—Fred. W. Thum, J. S. Brown, Charles Lehlbach, R. P. Francis, Sarah R. Mead, W. F. Seidler, J. H. Bradshaw, A. K. Baldwin, H. A. Pulsford, W. H. K. Davis, R. C. Newton, H. E. Matthews, J. D. Osborne, T. Y. Sutphen, H. L. Coit, T. F. Phelan,* J. W. Rankin,* J. W. Read.* Members, 179.

Gloucester—H. A. Wilson, L. M. Halsey, H. A. Stout, J. Hunter,* E. T. Oliphant.* Members, 24.

Hudson—G. E. McLaughlin, H. H. Burnette, M. Lampson, W. P. Watson, F. M. Corwin,* S. A. Helfer,* T. R. Chambers, H. B. Rue. Members, 55.

Hunterdon—E. W. Clossen, A. W. Cooper, E. D. Leidy, W. E. Berkaw, M. D. Knight.* Members, 24.

Mercer—E. Barwis, F. V. Cantwell, W. Clark,* H. B. Costill,* C. F. Adams,* F. H. Mackenzie,* D. Warman, E. Titus. Members, 55.

Middlesex—E. B. Dana, S. V. D. Clark, A. C. Hunt, A. V. N. Baldwin,* J. L. Suydam.* Members, 22.

Monmouth—W. B. Beach, J. E. Cooper, I. S. Long, Samuel Johnson, C. Knecht, George Wilbur. Members, 35.

Morris—L. F. Bishop, F. W. Flagge, H. A. Henriques,* H. V. Day, J. Walters, G. O. Cummins,*, A. A. Lewis. Members, 46.

Passaic—J. H. Banta,* F. E. Agnew, J. L. Leal,* W. K. Newton,* J. W. Smith,* H. Parkes,* Geo. Terriberry,* T. J. Kane, M. A. Mackintosh. Membership, 63.

Salem—W. H. James, Daniel Garrison, G. W. H. Fitch, W. L. Ewen.* Members, 14.

Somerset—Mary E. Gaston,* W. H. Merrell, J. H. Cooper, L. T. Reed,* J. P. Hecht. Members, 18.

Sussex—J. B. Pellet, J. B. Strader, H. D. Van Gaasbeck, E. Morrison, Sidney Strailey. Members, 24.

Union—W. U. Selover, Jas. S. Green, J. P. Reilly, M. B. Long, E. W. Hedges, S. J. Keefe, E. B. Grier, T. J. Jackson. Members 51.

Warren—W. C. Albertson,* G. W. Cummins,* M. N. Armstrong,* Wm. Stites, C. B. Smith. Members, 25.

PERMANENT DELEGATES PRESENT.

Henry C. Neer, Charles Young, John H. J. Love, Arthur Ward, Joseph C. Young, Isaac S. Cramer, J. D. McGill, Robert F. Chabert, Cornelius Shepard, C. H. Andrus, Henry Mitchell, John Stiger, W. B. Johnson, H. G. Wagnor, Sidney Strailey, Alonzo Pettit, E. B. Silvers, P. A. Harris, George Evans Reading, O. B. Gross, D. W. Blake, N. Newlin Stokes, Levi Farrow, George C. Laws, W. H. Vreeland, C. R. P. Fisher, Geo. R. Kent, George Bayles, William J. Chandler, Daniel M. Skinner, Edward J. Ill, George H. Balleray, T. H. Tomlinson, William H. McGee.

FELLOWS PRESENT.

Franklin Gaunt, Henry R. Baldwin, Alexander W. Rogers, P. C. Barker, H. Genet Taylor, George T. Welch, John G. Ryerson, O. H. Sproul.

REPORTERS PRESENT.

Drs. I. Stock, Corwin, Heritage, Shepard, Cooper, Carpenter, Stillwell.

Officers all present excepting Dr. H. G. Witherill.

DELEGATES FROM CORRESPONDING SOCIETIES.

Pennsylvania, Wm. B. Atkinson, M. D.; Connecticut, Charles A. Tuttle, M. D.; New York State Medical Association, J. W. S. Gouley and T. H. Wiggins, M. D.; Society of State of New York, H. D. Drayton, M. D.; New Jersey Pharmaceutical Association, E. B. Jones and J. J. Flynn.

* Absent.

Letter of regret of his inability to attend the meeting was received from Prof. C. A. Lindsley, of New Haven, honorary member.

The report of the Committee of Arrangements was made by Dr. Henry Mitchell, Chairman. He said the Committee had had the pleasure to provide for the Society a beautiful meeting room. They had also been able to announce, for the first time since Dr. Mitchell had been a member, a concession in hotel rates. The rates, it was hoped, would become the standing rates—three dollars a day for each guest. The Committee had found on inquiry that the regular excursion rates on the railroads were less than those under special concessions, therefore, the latter had not been requested. A large, well-ventilated room had been secured in the basement of the hotel for exhibits.

This was the third time the Society had done Asbury Park the honor to entertain it members. The first time, it was no exaggeration to say ninety per cent. of those who had come went away disappointed, for the meeting room was four or five blocks away from the hotel, and the season being earlier, the place seemed cheerless and forbidding. On the second occasion the Society had been well pleased, and on the present one, the proprietor of the hotel was determined to let no one go away dissatisfied.

Regarding Asbury Park, it was the only town in New Jersey in which one would not hear the voices of hucksters in the streets, crying out vegetables, crockery and all sorts of things. This nuisance was prohibited by ordinance, for people did not come here to be disturbed by such noises. There was another town ordinance just going into effect, requiring that all those who sold milk should obtain a license, and this was granted only to

those who could show that their milk was from healthy cows, was clean, unadulterated, etc. Another feature of this town which would interest physicians was its system of keeping a record of all its buildings. In a record book, four pages were set apart for each house, stating whether frame or brick, size and condition of cellar, ventilation, water supply, whether sickness had occurred within its walls—the total number of questions running up to thirty-nine. Such information was of value to physicians sending patients to this seaside resort.

The Committee had thought it unwise to provide diversion in the way of a banquet, thus allowing more time for the scientific work of the Society.

Mr. Widdemer, delegates from corresponding societies and practitioners of medicine in this State were respectfully invited to sit as corresponding members.

An abstract of the minutes of the last annual meeting was read and, on motion, the minutes as published in the Transactions, with the correction, adding the name of Philip Marvel, M. D., Atlantic City, as one of the essayists, were adopted.

A ballot was taken on the nominations for permanent delegates, which resulted in the election of all the gentlemen named in the report of Committee on Credentials.

The Committee on Business made the following report:

Gentlemen of the New Jersey State Medical Society:

The printed programme which is presented is substantially correct, save two typographical errors, and the omission of the report of Dr. Coit, upon the relation of physicians and pharmacists to one another, which should be acted upon without discussion. This action will take place on Tuesday, following the paper of Dr. Marvel.

Your Committee have also received offers of original papers from Dr. Judson Doland, of Philadelphia, and Dr. Ferd. C. Valentine, of

New York. The printed programme having been distributed, these could not be received.

A proposition was also received from H. K. Mulford & Co., to furnish literature upon diphtheria anti-toxic serum. As this subject was to come before the Society for general discussion, it was thought best to confine the discussion to our own profession.

Your Committee would suggest as the subject for your discussion at your next annual meeting, "In the treatment of appendicitis, is the present free use of the knife necessary?"

Within a few days, Dr. M. P. Ravenel, in charge of the Bacteriological Laboratory, at Princeton, has signified his willingness to read a paper on the practical aspects of bacteriological diagnosis. Should the Society desire to hear the paper, a place may be formed for it after the paper of Dr. Balleray, on Tuesday evening.

HENRY R. BALDWIN, *Chairman.*
WALTER B. JOHNSON.
W. UPDYKE SELOVER.

On motion, the report was accepted, and the suggestions it contained were accepted.

The report of the Committee on Ethics and Judicial Business was made by Dr. Henry W. Elmer, and was to the effect that no question of ethics had been brought before the Committee during the year.

The report of the Treasurer was read by Dr. Mercer and, on motion, was received and the report referred to the Committee on Treasurer's Accounts. (See Appendix.)

The following bills presented by the Treasurer were ordered to be paid:

H. W. Elmer, Standing Committee	$9 00
Dr. Pierson, Recording Secretary	14 50
A. Mercer, Treasurer	8 06
Committee of Arrangements	19 00
E. L. B. Godfrey, Corresponding Secretary	21 84
R. C. Shultz, Stenographer	50 00
H. L. Coit	13 65

The report of the Corresponding Secretary was read by Dr. E. L. B. Godfrey; was accepted and, on motion of Dr. D. C. English, the matter referring to vivisection was referred to one committee, and that referring to place of meeting to be at the State Capitol was referred to another committee, both to be appointed by the President. Later, the President appointed the following: on vivisection, Drs. Daniel Strock, D. C. English and Charles Young; on the propriety of holding the annual meeting at the State Capitol during the session of the legislature, Drs. Alonzo B. Pettit, E. L. B. Godfrey and W. B. Johnson.

The report of the Committee on Methods for the Prevention of Purulent Conjuctivitis, in the absence of the Chairman, Dr. Kipp, was read by Dr. Walter B. Johnson. (See Appendix.)

Dr. Philander A. Harris, of Paterson, made some remarks upon the subject matter of the report before offering a resolution. He thought it was not only important that we should pass the resolution, but also that we should give it our personal consideration. The use of the method should not only be taught others, but it should be properly performed by the members of this Society. Still more would be accomplished when the laity had been educated to know that the eyes of the new-born must receive certain care.

He would ask Dr. Johnson what disinfecting solution was recommended to the accoucher for use before the birth of the child. He had, himself, been asked at times, what strength of disinfecting solution should be used in view of the possibility of its getting into the child's eyes. He had been informed that in this state a solution of bichloride was used in a certain case for vaginal injection, it got into the child's eyes, and almost resulted in loss of

sight. He did not know what strength of bichloride solution had been used. His question referred not alone to bichloride, but also to carbolic acid and other disinfectant solutions for douching the vagina, which physicians occasionally used.

Dr. Johnson replied to Dr. Harris' question by saying that the Committee was composed mostly of men not connected with obstetric work, and he thought the answer could best be given by the obstetricians themselves. His personal impression was that a solution of bichloride, 1-5000, or of carbolic acid, 1-200, could be used for the vaginal douche without danger to the eyes of the infant.

Resolved, That the report of the Committee on Methods for the Prevention of Purulent Conjunctivitis be received and printed in the minutes, and that the Committee be directed to prepare a suitable circular, according to their recommendation, for presentation to the New Jersey State Board of Health, with the request of the New Jersey State Medical Society that a copy of the circular and also a copy of the existing Law of the State of New Jersey for the Prevention of Blindness be sent by them to every physician, midwife and professional nurse in the State; also that the recommendation regarding the action of the State Board of Medical Examiners be carried out.

The report of the Committee on Legislative Action on Bovine Tuberculosis was, in the absence of the Chairman, Dr. J. W. Stickler, presented by Dr. Charles Young. The East Orange Protective Association and the Society of Orange had each appointed a committee to agitate the subject. Dr. Stickler thought they would be able to do a good deal when the subject of bovine tuberculosis should again come up in the committee of the legislature. Last year it had not arisen at all.

Dr. Skinner moved that the report be received and that the committee be continued. Carried.

The President announced the following as the Auditing Committee: Drs. D. A. Currie, W. A. Clark and D. M. Skinner.

Adjourned until two o'clock.

FIRST DAY—AFTERNOON SESSION.

The Society was called to order by the President at 3 P. M.

The report of the Standing Committee was read by Dr. H. W. Elmer, chairman.

Dr. E. L. B. Godfrey moved that the report be received and referred to the Committee on Publication, and that the thanks of the Society be extended the Committee for its report. Carried.

Dr. Godfrey, in discussing the report, said he wished to call attention to the Brandt method of treating typhoid fever. In the Cooper Hospital at Camden, during the year prior to the introduction there of the Brandt method, the average stay of typhoid patients in the hospital was fifty-two days. Under the Brandt method, it had been reduced to thirty-three days, at the end of which time the patients had been discharged fully cured. Probably the average case of typhoid fever would be found to terminate successfully under this treatment within fifteen days.

Clinical Observation. Referring to Auto-Intoxication of Gastro-Intestinal Origin.—Dr. Philip Marvel, of Atlantic City, read the paper. (See Appendix.)

Demonstration of Bassini's Operation.—Dr. S. E. Milliken, of New York, made the demonstration.

Dr. Daniel Strock, of Camden, thought we had witnessed a very interesting demonstration of what, at this time, was a very important operation. It would be remembered with what hesitation our teachers of twenty

years ago approached the operation for radical cure of hernia. In fact, patients were given very little encouragement that any operation which might be done would be successful. It was expected in nearly every instance that there would be a return of the trouble within a period varying from a few days to a few weeks or months. It was only within recent years that an operation for radical cure was performed with success in the large majority of cases. To his mind there was no other operation which approached in value the one which had been described this afternoon. The cures obtained by those who had performed it a number of times had been almost one hundred per cent. He believed Dr. Marcy, of Boston, had given the latest statistics, and his own results, if the speaker was right in his recollection, approached those figures.

Dr. Strock could endorse the Bassini operation from personal experience, having had occasion to do it a number of times with gratifying success. This last winter he had operated upon a man seventy years of age with good result. He spoke of the case because there was also disease of the testicle, which made it desirable, although not absolutely necessary, to remove the testicle, and in doing this he also removed the cord, thus clearing out the canal thoroughly. In order to clear the canal of all foreign material, it was best also to remove fat and connective tissue, and give the walls of the canal a better chance to become agglutinated and to more permanently re-enforce the internal ring.

Formerly operations for hernia were undertaken only when there was some urgent indication, as the presence of strangulation, but at present the success was such that we operated just as did gynecologists for ovarian disease, without waiting for complications to arise which might

imperil life. Coming down on the train he had been asked by a gentleman as to the propriety of doing a radical operation for hernia in an insane person, and his reply was, that it could be done with perfect safety, and it was the duty of the physician in charge to have the operation performed since they found difficulty in retaining the hernia by any sort of support. He felt confident that the patient could be entirely cured.

All had cases of this character, and had frequently hesitated to advise an operation, fearing that, after all, the result would not be what was promised, but the percentage of cures had become so great that Dr. Strock thought such fears should be abandoned.

Of course it was important that the sutures should be the best—kangaroo tendon. This material was not absorbed so quickly, and retained the tissues long enough for perfect union to take place.

As well as he could remember, he had never employed drainage in Bassini's operation. He had not thought it necessary. There had been some suppuration in one or two cases, but it seemed not to have done any harm. He had employed the ordinary dressing used in other wounds, but took special care to avoid infection. A little support was used when the patient first got up.

Dr. Benjamin, of Camden, inquired how a case of hernia would be treated in which the fluid of a hydrocele extended up the cord. He had such a case, and hesitated to operate on the sac, and yet it enlarged the ring and prevented retention of the hernia by a truss. He would like to know what would be the result of operating for the hernia, at the same time opening the hydrocele sac. He did not think injection of the sac, with a view of causing its occlusion would be safe, as it would be necessary to produce an amount of inflammation which would endanger important adjacent structures.

Dr. Philander A. Harris, of Paterson, wished to emphasize the importance of using sutures which were not too absorbable. He had had one case in which silk had come out. As a non-absorbable suture he had employed silkworm gut many times, and had yet to see a case in which, on sewing the conjoined tendon and fascia, the silkworm gut had come to the surface. He believed it was a good deal less likely to come to the surface than silk. But it had a disadvantage, and he was looking for something which would stand for from four to six weeks. Kangaroo tendon was expensive. Catgut, he had been informed by one or two friends who had a method of their own of chromicising it, which method he had not yet tried, could be rendered non-absorbable for at least five or six weeks, if the thread was not too small. Then, by thoroughly dehydrating it by exposing it for hours to a temperature not exceeding about 150°, then running the temperature up to 280° or 300°, the catgut had so far not caused suppuration. Or it might be rendered aseptic by boiling in absolutely pure alcohol.

During the last two years Dr. Harris had buried all of his sutures, not only in hernial operations, which he did less frequently, but also in abdominal operations, but the material which he had used, silkworm gut, being non-absorbable, was a foreign body and he would be glad to get rid of it. He would like to know if catgut prepared in the manner suggested, rendered aseptic and non-absorbable for about six weeks, would not answer the purpose of uniting these tissues.

Dr. Milliken expressed his pleasure at having heard so free a discussion of Bassini's operation. He was very glad, indeed, to hear that Dr. Strock was able to offer such flattering results. Personally, he had not been fortunate enough to get one hundred per cent. of his

wounds to heal primarily, and he believed that, unless one secured primary union from the skin down to, and including, the deep structures, he could not promise the patient a radical cure. In fact, in every case in which he had had suppuration, whether due to suture material or other cause, there had been recurrence. What was wanted was a more careful following of our hernial cases.

Some five years ago Dr. Milliken had looked up 180 cases of recurrent hernia which he had seen at the Hospital for the Ruptured and Crippled. It was before the Bassini operation had become adopted in New York, and the cases were not classified, but in a great many the operation had been performed in hospitals and by leading surgeons, and had been recorded as cured. But the operators had followed them only for six months or less. The wound having healed, the cases had been recorded as cured. But subsequently the hernia returned, the patients were disgusted, and went elsewhere for a truss.

Dr. Milliken thought all would find a certain percentage of recurrences, and they should be looked for. It was hardly natural to expect one hundred per cent. of cures from an operation for hernia, for we did not get one hundred per cent. of solid abdominal walls after a simple abdominal section. But there had been great improvement, and Bassini's statistics were very flattering.

Regarding removal of the testicle at the time of doing Bassini's operation, referred to by Dr. Strock, the speaker had had two cases in which he had removed the testicle for disease which happened to be coincident with hernia. In one case the patient had a double hernia and a tubercular testicle on one side. It was the case in which a stitch abscess developed at the kangaroo tendon three months afterward.

In operating for strangulation he always did the radical

operation unless his patient was moribund at the time. It was very little more trouble after the sac had been opened.

Dr. Milliken kept his patients in bed, absolutely recumbent, for three weeks, so as to get firm union, not only of the skin, but also of the deeper or tendinous structures. Then he advised them not to use any support. He believed that trusses at the best produced a certain amount of absorption of the tendinous structures, and that up to a certain degree they were actually provocative of hernia rather than preventive.

He supposed the case referred to by Dr. Benjamin was one known as diffuse hydrocele of the cord, the fluid extending up into the canal. If it did not communicate with the abdominal cavity, the sac being shut off at the internal ring, he could see no reason why Dr. Benjamin should hesitate to tap it and inject carbolic acid. He had operated on a number of these cases, and did not believe the radical operation should be undertaken until an attempt had been made to cure the hydrocele by injection. A large percentage of the cases would be cured by the carbolic acid alone. Particularly in children, where the walls of the sac were thin, the carbolic acid, as a rule, produced sufficient inflammation to cause obliteration. Where hernia was present and an operation was indicated, the two, the hydrocele and the hernia, could be operated upon at the same time.

Regarding silkworm gut, he had never used it in herniotomy, for knowing that it was non-absorbable, he passed directly from silk to chromicised catgut, but finding this too brittle he discarded it for kangaroo tendon.

A vote of thanks was extended Dr. Marvel and Dr. Milliken for their able papers.

Report of Committee on Ethical Rules for the Guidance

of Physicians and Pharmacists in their Relations to One Another, was read, and after considerable discussion action was, on motion of Dr. Shepherd, indefinitely posponed.

On motion of Dr. English the thanks of the Society were tendered to Dr. H. L. Coit, chairman, and the members of the Committee on "Relation of Physician and Pharmacist," for their zealous and faithful services of the Society, and assure them that the action taken yesterday was not intended as any reflection upon our Committee or the Pharmaceutical Association, but the judgment of this Society that the pleasant relations existing between these two Societies shall continue without formal action binding us in our ethical relations. Unanimously adopted.

Report of Committee on Revision of By-Laws. Dr. Henry Mitchell, Chairman, read the report. He said that at the last annual meeting a committee was appointed to consider certain suggestions made by the President in his annual address, and one of the requirements was that the Committee should submit their report to the various district societies for their consideration before the report was considered here. This requirement, however, had been found impracticable and had not been complied with because the meetings of the Committee had to be continued to near the time of the annual meeting.

The Committee had very carefully considered the matters involved in their labor. Two typewriter copies of the report had been made, but as it was found impossible to study them with sufficient care and satisfaction, printed copies were prepared, a number of which were at hand for use by the Society. At its last meeting the Committee had made a few changes in the printed matter.

Dr. Godfrey moved that the proposed by-laws represented by the printed report of the Committee be considered by sections without first reading the full report. Carried.

Sections 1, 2 and 3, of Chapter I, were read and adopted.

Dr. Godfrey offered this amendment to Section 4: The names of all permanent delegates who may have died shall be reported to the Corresponding Secretary by the Secretary of the society of which they were members, and the Corresponding Secretary shall in turn report them to the Medical Society of New Jersey. Adopted.

The section as amended was adopted.

Sections 5, 6, 7 and 8, Chapter I, were adopted.

Dr. Godfrey moved to have Section 9 so amended as to provide for section meetings. After considerable discussion, pro and con, upon the proposed amendment, Dr. Godfrey asked the privilege to withdraw the motion as it did not seem to meet with general favor. The privilege was granted.

Dr. William Pierson moved the insertion between 5 and 6, relating to the order of business, "Election of permanent delegates." Adopted.

Section 9, Chapter I, was then adopted.

The remainder of Chapter I was adopted.

Chapter II, to and including Section 9, was adopted without change.

In Section 10 the word corresponding was added, after which the Section was adopted.

Section 11 was amended by inserting, "And permanent delegates," and was then adopted.

Sections 12, 13, 14, 15 and 16 were adopted. .

Chapters III and IV were adopted.

Dr. Reading moved to strike out "three" in the second

line from the bottom of the page, Section 2, Chapter III, requiring the Committee on Nominations to present three names for Third Vice-President.

Dr. Welch said the chapter, including the section under dispute, had been adopted unanimously, but since there was some objection to it, he would move to reconsider.

The President put the question on reconsideration, and declared it lost by a vote of 30 in the affirmative, 38 in the negative.

Dr. Reading demanded the roll-call by delegates.

The roll having been called, the President declared the motion to reconsider adopted.

The Society then adjourned until the evening session.

FIRST DAY—EVENING SESSION.

The Society was called to order by the President at 8.25 P. M.

The President remarked that when the Society adjourned it had decided to reconsider the vote on the adoption of Section 12 (Section 2, Chapter III).

Dr. William Pierson moved to strike out the word "three," thus leaving the by-law relating to nomination for Third Vice-President as it had been up to the present.

The President put the motion and declared it carried, after which the section (12) was adopted as amended.

On motion, the by-laws were adopted as a whole.

Dr. Henry Mitchell moved that all by-laws and portions of by-laws which interfered with or conflicted with those just adopted shall be repealed. Carried.

Dr. William English moved that the Committee on Nominations be instructed to nominate a standing committee of six members, two of whom shall serve one

year, two of them two years, and two of them three years, thus complying with Section 7, Chapter II, of the new By-Laws. Adopted.

The Hon. James A. Bradley having been invited to sit as corresponding member, made a few remarks, thanking the Society for selecting Asbury Park as its meeting place. He said they deemed it no small honor that such a body of men should come to their town to transact the business pertaining to their profession. Individually, he thought a great deal of the medical profession because of the comfort and happiness it added to life. It was through a member of the medical profession, Senator Parry, that the State Legislature had learned a great deal about those bills which affected the health of the people of the State.

The President, Dr. William Elmer, of Trenton, then proceeded to read his address: "The Relation of the Physician to Sanitary Science."

The Vice-President, Dr. T. J. Smith, being in the chair, a motion was received, thanking the President for his very interesting and instructive address, and requesting a copy for publication in the Transactions. Carried unanimously.

Dr. George H. Balleray read a paper, "Fibroid Tumors of the Uterus Obstructing Labor; Subsequent Disappearance of the Tumors. Remarks on Uterine Fibroids as a Complication of Labor."

Dr. W. B. Johnson moved that a vote of thanks be extended Dr. Balleray for his valuable paper, and that a copy be requested for publication in the Transactions. Carried.

Dr. Benjamin hoped the paper would not pass without discussion, for he regarded it as one of the most valuable ever read before the Society. The experience

was unique, the action taken intelligent and remarkably successful, and it offered a very fair guide for practitioners who were frequently placed in a very trying position, and he would like to hear the experience of others.

Dr. Benjamin had himself once been asked to remove an ovarian tumor, and after having done so he found a fibroid of the uterus. The condition of the patient would not permit the removal of the latter at that time. Subsequently a portion of it was discharged through the vagina.

The speaker had followed the literature of this subject for years, but did not remember of more interesting experience than that related in this paper.

Dr. J. W. S. Gouley, of New York, agreed with the last speaker, that the paper was one of vast importance. There was one way of settling a difficulty which seemed to have arisen in the mind of the essayist, as to why these tumors disappeared. The metamorphosis of tumors of all kinds, it seemed to Dr. Gouley, was a very interesting subject and he had given it study for many years. The difficulty in explaining the absorption of these tumors was that they were spoken of as fibroids, but they were not in reality fibroids. Certainly, ninety per cent. of them were not fibroid tumors. They contained the smallest amount of fibrous tissue. They were myomata, being made up of the same kind of muscle tissue as that of the uterus. Therefore, when involution took place after pregnancy, the tumors disappeared with the disappearance of the excessively developed muscular tissue in the uterus. This, it seemed to him, was the only possible, the only rational explanation of this phenomena.

The law of metamorphosis of tumors of different

kinds was now well accepted, that very many benign tumors became malignant. These very myomata of the uterus sometimes became sarcomata. But it was possible in a true fibroid for hardening and shriveling to take place until there was little of it left.

Dr. Gouley had had occasion to observe several myomata of the uterus, so-called fibroids, which increased up to a certain time, and at the menopause began to decrease just as the uterus advanced in involution. He believed that was the correct explanation.

Dr. P. A. Harris, of Paterson, said it had not occurred to him to meet with many cases of fibroid tumor of the uterus, and see the women become pregnant and carry their children. He could recall only three cases. He had seen a number of cases of fibroids or myomata, but when the patient conceived, abortion occurred. He believed the rule was that a very considerable proportion of the cases miscarried. It was also true that women in whose uterus there was a fibroid were less likely to conceive. There was not much literature on the subject. In such cases there was apt to be considerable hemorrhage from the mucous membrane, and it was this which forbade pregnancy. And, as stated, when pregnancy did take place, a considerable portion of the cases aborted. When, however, they went to term or near it, he thought the probability of the tumor disappearing was considerable.

In January, of the present year, he was called to a case by a gentlemen some distance from his home, in a woman about forty-two years of age, in the lower zone of whose uterus was a small fibroid. He ought, he said, to have done symphyseotomy, but not doing so he succeeded in delivering the woman of a dead instead of a living child. The point of interest was, that since delivery, the

tumor had almost entirely disappeared. About six years ago, Dr. Harris had had another case in which a tumor of the uterus as large as a child's head disappeared entirely after labor, and the woman had had two children since. She also had a flattened pelvis, and most of her children had been born dead, but one had been born alive since the disappearance of the tumor. In another more recent case of interstitial growth, which spread itself over the greater part of the uterus, the organ ruptured during labor, causing death.

Dr. Harris thought it was certainly true that if pregnancy had advanced to or near term, the chances were that after delivery the tumor would go away. But there were also other chances; the tumor might suppurate and break down.

Regarding disappearance of the tumor at the menopause, referred to by one of the speakers, it depended a good deal upon its size. He believed the monopause was delayed; it might be from two to ten years. Not that typical menstruation was prolonged for ten years, but hemorrhages took place, and there was fairly normal menstruation for many years. We must not rely too much upon disappearance of the tumor at the menopause. To do so was more excusable at a time when we knew less about hysterectomy. Now, when it was perfectly safe to go into the pelvis, ligate the arteries and take out the entire uterus and appendages, and have almost all the patients recover, we need not wait for any uncertain thing like spontaneous disappearance of the tumor on the occurrence of the menopause.

Dr. A. M. Cooper, of Pennsylvania, had had three cases; in one he injected fluid extract of ergot into the abdominal walls for a period of ten months, and the tumor entirely disappeared from the uterus. That was

twenty years ago and the woman was still living. In another case the ergot was not given hypodermically, but by the mouth; hemorrhage ceased and the tumor disappeared. The third case was in a woman seventy years of age, with a very large abdomen, due to the presence of the tumor; she was suddenly seized with frightful hemorrhage and died immediately after his arrival. In a fourth case he was called to assist a physician in the patient's confinement, and two or three months afterwards the tumor of the uterus which had interfered with labor had entirely disappeared.

Dr. Near mentioned two cases of fibroids of the uterus about which he consulted Dr. T. Gaillard Thomas, and received the advice to let them alone; that probably they would disappear at the time of the menopause. His prediction proved correct, for about five or six years after the menopause he examined both women and found that the tumors had diminished more than one half, and he believed they had since disappeared entirely. Only a small hard mass remained. They had been as large as a man's head.

Dr. Benjamin did not know of any brief discussion in which so much valuable experience regarding tumors of the uterus and their behavior had been related as on this occasion. He also recalled a case of tumor present during labor, about the size of a cocoanut, which afterwards disappeared. He hoped other members would put their experiences on record.

Dr. Curt said that about six years ago he was asked to attend a woman with a curious history. A number of months previously her attention had been called to an enlargement of the uterus, and she suspected pregnancy, and was told that she was pregnant, although menstruation continued regularly. She was advised to wait, but

after the time for confinement had gone by, she consulted Dr. Goodell, of Philadelphia, who diagnosed fibroid tumor. She returned home, greatly disturbed, for her mother had died of fibroid tumor, two sisters had been afflicted by the same disease—one had died in the spring after undergoing an operation. About a year and fifteen months after seeing Dr. Goodell she became pregnant, went to term, labor passed off smoothly, and the tumor, about the size of a cocoanut, subsequently disappeared and the woman was then quite well.

Dr. Balleray, in closing, thanked the Society for the courteous manner in which it had received his paper. Regarding the disappearance of tumors, he thought he had stated clearly in his paper that when myomata disappeared after labor they underwent the same change as the uterus. That was not difficult to comprehend, but it was the disappearance of tumors during pregnancy that he did not understand. That is, the tumor disappeared while the normal structures of the uterus were in a state of extreme activity.

The disappearance of tumors after the menopause had no direct bearing upon the paper. Dr. Harris had said not to wait for the menopause, but proceed to take the tumor out. That was proper if the patient's life was jeopardized or her health suffered, but Dr. Balleray thought it was not justified where there was absence of hemorrhage, of pressure symptoms, and of rapid growth. Nature had successfully cared for such cases in a great many instances without the aid of surgery.

Dr. Balleray did not believe that abortion was very likely to occur in the class of cases under discussion. He spoke from his own experience and that of some of his friends. Some of them, however, had induced abortion in order to avoid the danger which might arise at

labor at term. But spontaneous abortion was not common. He then had a case under observation in which pregnancy had advanced to the fifth month, and the tumor and uterus extended up to the diaphragm. He expected to do Cæsarian section. This woman was a hard laborer, yet abortion had not taken place.

Dr. Gouley would answer the question regarding the disappearance of tumors during the course of pregnancy, by saying that if the tumor was a large one it was likely to be taken up in the general increase in the uterus. Certainly that would be likely to take place in interstitial tumors. The fatty degeneration after labor then went on in the tumor as in the uterus. He thought that was a rational explanation. It all belonged to the question of retrograde metamorphosis, whether it took place after labor or after the menopause.

Dr. Harris wished to add that it could be taken for granted that none of us would remove the uterus simply because it contained a tumor. There were many cases in which he had not advised an operation, and would not do so until symptoms arose.

The Value of a Bacteriogical Diagnosis. Dr. M. Ravenel, of Princeton, read the paper.

Dr. Hollingshead offered the following resolution, which was adopted:

WHEREAS, The College of New Jersey has devoted to the physicians of the State a building upon its own grounds and at its own expense, for bacteriological research; and,

WHEREAS, The Legislature has refused the necessary appropriation asked by the State Board of Health for its maintainance; therefore, be it

Resolved, That the members of the Medical Society of the State of New Jersey be requested to interview the members of the Legislature, impress upon them the necessity of such appropriation, and use all honorable means to induce them to grant it.

Dr. Parry said with regard to the bill before the Legislature calling for an appropriation for the laboratory at Princeton, that it failed to pass because it was apparently without backing. The medical profession of the State had not expressed its wish to have it become a law. But any reasonable appropriation asked for by this Society, and by its individual members, of the representatives from their districts, would be granted. Dr. Parry thought the laboratory referred to should be kept up, for it had done good work, and the medical profession of the State could refer their cases there for bacteriological diagnosis, etc.

Dr. Parry moved that the matter be referred to the County Societies, in order that it may be endorsed and pushed by every County Society in the State.

Dr. Henry Mitchell spoke for Dr. Parry's motion, saying that, as one to appear in behalf of the appropriation when it came before the Legislature, he had found that it required a more general expression of opinion of the profession throughout the State in order to convince the Legislators of its necessity. He believed with Dr. Parry, that if the physicians would make their wishes known, the Legislature would take action.

Dr. Parry's motion was adopted.

Dr. Benjamin offered the following resolution, which was adopted:

WHEREAS, The establishment of a Laboratory of Bacteriology and Hygiena at Princeton by the Board of Health of our State has been and is of great importance to the welfare of the people, and of great assistance to physicians in the proper management and treatment of disease; therefore,

Resolved, That this Society extends a vote of thanks to the State Board of Health for its effort in the establishment of this laboratory, and earnestly hopes that the Legislature of our State will give it appropriate assistance in this important matter.

Dr. McGee moved that the President be authorized to appoint a committee of three to go before the Legislature and urge the passage of the bill appropriating money to the Laboratory of Bacteriology at Princeton, and explain the necessity for such action. Carried.

The following persons were appointed as the committee: Drs. D. M. Skinner, D. Warman, H. G. Taylor, J. S. Baer.

Dr. Baldwin presented a communication from Dr. Daniel Lewis, of New York, relating to a medical directory. No action was taken in reference to it.

A paper by Dr. Archibald Mercer, "Abdominal Surgery, with Special Reference to Puncture Wounds within the Last Twenty Years," was read by title and referred to Committee on Publication.

Dr. D. C. English read the following resolution, offered by the special Committee on Vivisection, which was adopted:

The Committee to which was referred the communication from Surgeon General Sternberg on the subject of vivisection, would respectfully recommend the adoption of the following:

Resolved, That it is the sense of the Medical Society of New Jersey that the passage of the bill entitled "A Bill for the further Prevention of Cruelty in the District of Columbia," now pending before Congress, would prove a bar to proper scientific investigation and a hindrance to medical and surgical progress; and that the said bill is not humane, in that it could restrict the possibilities of acquiring knowledged that will lessen human suffering and save or prolong life; therefore,

Resolved, That the Medical Society of New Jersey respectfully request the members of Congress from this State to use every proper effort to prevent it from becoming a legal enactment.

Resolved, That prinied copies of this action be forwarded to the New Jersey Representatives in the Senate and House of Representatives, and to the Chairmen of the Committees on District of Columbia in the Senate and House of Representatives of the United States.

(Signed) DANIEL STROCK,
DAVID C. ENGLISH,
CHARLES YOUNG,
Committee.

The resignation of Dr. H. G. Wetherill as a member of the Standing Committee was received and accepted.

The President announced the Nominating Committee as follows:

Bergen, D. A. Currie; Burlington, E. Hollingshead; Camden, W. H. Iszard; Cumberland, A. R. Judson; Essex, Joseph C. Young; Gloucester, Geo. Redding; Hudson, M. Lampson; Hunterdon, W. E. Berkaw; Mercer, E. Barwis; Morris, L. Farrow; Middlesex, C. H. Andruss; Monmouth, J. E. Cooper; Passaic, P. A. Harris; Salem, D. Garrison; Somerset, J. P. Hecht; Sussex, S. Strailey; Warren, Wm. Stites.

Adjourned until 9 o'clock A. M. to-morrow.

SECOND DAY—FINAL SESSION.

The Society was called to order at 9:25 by the President.

Discussion upon the subject presented at the last annual meeting, Is the Therapy of Antitoxin Serum, Nuclein Solution and Thyphoid Extracts so fully Established as to Receive the Endorsement of the Profession, was introduced by Dr. Alix McAllister. (See Paper in the Transactions.)

Dr. Walter B. Johnson, of Paterson, thought the thanks of the Society were particularly due to Dr. McAllister for the very careful manner in which he had prepared the paper upon these subjects. Although there had been some opposition to the antitoxin treatment of diphtheria, he personally had no doubt of its good effects. His experience with it had been limited to cases treated with it by other physicians who had called him to do intubation. In all cases where he had been called upon to intubate he had made no suggestion to the physician in charge as to the treatment, but each one had treated his cases as he

had been accustomed to treat diphtheria. It had transpired that a certain number of these physicians were in favor of antitoxin treatment, and used it.

Dr. Johnson had made something over 100 intubations, and in about twenty of them antitoxin had been used. In the cases in which antitoxin was used the percentage of recoveries had been much higher than in the other cases. He believed that out of the twenty cases fifteen had recovered, or 75%, while out of the whole 100 cases the percentage of recoveries had been only about 38%. Now, as that included the cases treated with antitoxin, it would be seen that the percentage of recoveries with antitoxin was more than twice as great as where only other methods had been employed.

Further than that, he might say that he had been called upon to intubate on a number of occasions when antitoxin had been used, but he rather delayed, and the cases had never come to intubation, although at the time when he had been called it had seemed that they would certainly require it within twelve or twenty-four hours. He could recall at that moment three such cases where intubation was not done, antitoxin was given, the croup disappeared, and the patient gradually made a good recovery.

Dr. Johnson believed there was very little danger in the use of antitoxin. He had never been able to positively decide that any case had received any injury as a result of the antitoxin injection. He had seen cases in which albumen was present in the urine, but he had also seen albumen in the urine when antitoxin had not been used. He felt that this treatment should be plainly set before the gentlemen who had not tried it, with a view to having them, when the occasion arose, extend the relief which followed its use.

Regarding thyroid extract and nuclein, he had had no experience.

Dr. Barker, of Morristown, said he had been listening for some word of caution in the use of antitoxin, but it would seem from the remarks made thus far that no particular caution had to be observed. He did not feel that way. Antitoxin was a valuable remedy, but it had a double edge. He had some minutes of a case which had come into their hospital for contagious diseases some time ago. A girl of eleven years, naturally strong, came into the hospital with diphtheria of moderate severity. She had been taken with vomiting, fever, and sore throat Saturday afternoon; next morning was no better, and was brought to the hospital in the middle of the day. She was not directly under his control, but of that of another physician. Preparation was made for injection of antitoxin, and at 6:15 P. M. an injection was made of a thousand units, the serum used being Mulford's, because it was available. Personally he favored Aronson's, althongh he had not had a large experience.

At the time of the injection the temperature was 100° F., the pulse 128°. There came the usual reaction of the pulse, the temperature dropped 0.6 of a degree two hours afterward. The patient had been vomiting everything which she swallowed until the latter part of the evening, when she retained small quantities of milk, took it readily, and said it did not hurt her to swallow any more, was in comfortable condition, and passed a comfortable night. The patient was the step-daughter of a physician, and among his medical friends in New York was one connected with the Willard Parker Hospital. In the evening he telephoned that friend, telling him what had been done, and he replied that it would have been better had fifteen hundred units been injected instead of a

thousand, and he proposed to come out in the morning to see the child. He did so. The child was perfectly comfortable in the morning, and all through the night until he came; it was apparently doing perfectly well. At 10:45 A. M. he injected fifteen hundred units. At 12 o'clock the patient's pulse was 147°; she vomited, and from that time grew worse until 7:30 in the evening, when she died. She had vomited constantly, the pulse ran up steadily, became irregular, and she died from heart failure in spite of strychnine and stimulants.

Having been asked what preparation of antitoxin was used the last time, Dr. Barker replied that the doctor who had made the injection brought it over with him from New York—Health Board serum. But the point was that the child had been doing perfectly well, and that being so he would not, had the case been under his charge, have made the second injection, for, as he had said in the outset, it was a double-edged remedy, and if it did no good, it might do harm.

Dr. Deland, of Philadelphia, spoke of the influence of antitoxin on the mortality of diphtheria. The mortality under other treatment was about 40%, and from that it was claimed that it was reduced anywhere down to 12%. This enormous gain would, of course, necessitate the use of any remedy to which it could be proven to be due. In seeking an explanation, however, for this great difference in mortality under the use of antitoxin, and under the ordinary treatment of diphtheria, we were confronted with a number of facts which must be carefully considered.

In the first place, in the past, cases of diphtheria had not been diagnosticated with the readiness which was observed to-day. There was no question at all that a large number of cases were now recorded under the head

diphtheria which in former years were not so considered. That was largely due to the influence upon our diagnosis of the reports obtained from biological laboratories. We knew of a number of cases which looked like ordinary throat affection, in which, after careful examination, the Lœffler bacillus was found, therefore the case was quarantined, recovered, and went on record as one of diphtheria. The introduction of a certain number of these cases into statistics was unquestionably one of the reasons why the mortality of diphtheria had descended from 40% to 12%. Just exactly how much percentage we must allow for this he was unable to say, but it certainly was a factor.

Then, it must be remembered that it was very difficult at times to estimate the difference in epidemic influence. Those who had seen much of diphtheria recognized how variable was the mortality in epidemics of different years. This, of course, rendered the study of the influence of a drug by statistics also somewhat uncertain. But the careful reader of the reports from all over the world found so great a difference in the mortality under the old method of treatment and under the use of antitoxin, when given within twenty-four to forty-eight hours, of proper kind and in proper quantity, that he must come to the conclusion, the speaker thought, that the antitoxin did exercise a beneficial influence over the disease. One would, more particularly, be struck with the statements which had come from such men as Beginsky, who had for years been going into diphtheria wards, and had observed under this new treatment a complete change in the physiogomy of the wards. The general appearance of the disease had unmistakably altered. These facts made Dr. Deland feel sure that we had in antitoxin a remedy with a powerful beneficial effect, and, therefore, one which de-

served continued study. Of course, much must yet be learned, and except for this return of the records the use of antitoxin was experimental in a measure.

With regard to thyroid extract, in obesity, he had gotten very good results, but in exophthalmic goitre thyroid extract had been entirely unsuccessful in his hands.

Dr. R. C. Newton, of Montclair, said the American Pediatric Society had collected over six thousand cases of diphtheria treated in private practice, not in hospitals, and they had reported that out of that number of cases no accident had occurred; that fact, of course, was very encouraging. If the remedy could be used with that degree of safety, of course we would be justified in trying it in all cases. As Dr. Deland had said, a great deal of good had come from its mitigating the horrors of this terrible disease. While the question had not fully been settled, and could not be settled before two or three years more time, yet he thought we were certainly justified in going on with the treatment. The result of this investigation by the American Pedriatic Society had been unexpectedly encouraging, for we had heard so much about sudden deaths following the injection that the Society would have been prepared to find a comparatively large number in the cases collected, but they had found not one, as he had been informed by Dr. Northrup. That fact in itself was very satisfactory.

Dr. Stokes said that a month ago he had collected statistics of all the cases in which antitoxin had been used in Burlington County—sixty-eight in number. Among the sixty-eight were eight deaths, two within a few hours of the injection of the antitoxin, the patients having already been moribund. Dr. Stokes thought these latter cases should be excluded in estimating the efficacy of the remedy. That would make of the sixty-six remaining

cases six deaths; or a morality rate of 9%. This low percentage was all the more favorable since many of the physicians used the remedy only in their severe cases. Many light cases of diphtheria had occurred in Burlington County in which the antitoxin had not been used, and the 9% only represented the mortality in severe cases. Although cultures had been made in only a few of the cases, he had no doubt that all the cases were true diphtheria. In only fifteen were the tonsils alone involved; in three-fifths the nose and larynx were involved as well as the tonsils and pharynx.

Of those injected on the first day, 3.8% died; of those injected on the second day, 10.5% died; of those injected on the third day, 11.5% died; on the fourth day, or later, 19%.

The statistics in the laryngeal cases were extremely favorable—twenty-one recoveries out of twenty-four cases, or 85%.

Of the six deaths, three were due to laryngeal stenosis, one to septicæmia, the antitoxin having been used on the third day; two occurred in patients who were not injected until the fifth day. In both of these cases the immediate effects were very beneficial, the membrane entirely cleared up, and in ten days the patients were apparently convalescent, and then died of heart failure, one only while turning over in bed. Dr. Stokes thought it probable that if the remedy had been used early the heart failure might have been avoided.

All of the reporters had expressed themselves favorably to the action of the antitoxin. They thought a number of the cases would undoubtedly have died without the treatment. Unfavorable views had been expressed only by those who had not used the remedy.

Dr. Sullivan said he had used antitoxin somewhat, and

was in favor of it; still he could not say that he was heartily in favor of it, because he was unable to state positively that the good result in all the cases in which he had employed it was due to it alone, as he had also employed other remedies. Could any one present say that antitoxin was a remedy *per se?*

Dr. Flagg called attention to the statement of pathologists that the Lœffler bacillus was sometimes found in entirely healthy throats, and he asked why it might not be found in ordinary sore throat or tonsillitis, in which there was not diphtheria.

Dr. Titus had used antitoxin in sixteen cases, with one death. The patient who died was in a moribund state when he used it. He thought it was almost a specific for diphtheria; that it was a remedy *per se* against the toxin, but not against the complications of diphtheria. If used early it would antagonize the toxin, and, he thought, prove almost a specific.

Dr. F. V. Cantwell, of Trenton, thought his experience must have been unique, since within a certain number of months he had had thirty-one cases of tracheotomy for diphtheria, with only three deaths. The character of the cases was, in all, bad. They were brought to St. Francis' Hospital, some of them moribund, so that he did not even give an anesthetic while doing the operation. Antitoxin was used, with the percentage of recoveries mentioned. The tube was left in on an average perhaps of four days. In two or three cases it had to be re-introduced two or three times. No special care was needed in the after-treatment. Occasionally, when the breathing became dry and rapid, a little water was atomized into the throat. In fact, they now had very little dread of diphtheritic croup at the St. Francis' Hospital. He had operated upon two children in two different families, and

all four of the patients recovered. Cases that refused operation invariably died.

Dr. Ravenel, of Princeton, said there were three points in the use of antitoxin which had not yet been mentioned. In the large majority of cases of diphtheria there was a streptococcus complication, and a great many of the severe symtoms were undoubtedly due to absorption of a streptococcus toxin. Where diphtheritic antitoxin failed to produce a good effect it was highly probable, although it had not been absolutely proven, that it was due to absorption of the streptococcus poison, and not to the toxin of the Klebs-Lœffler bacillus.

The two great counts brought against antitoxin by its opponents were, that it caused albuminuria and destruction of the red blood cells. Dr. Ravenel thought it had been pretty well established that a large percentage of cases of diphtheria not treated by antitoxin showed albuminuria. The kidneys were almost invariably overtaxed, and it was not at all fair to attribute slight albuminuria, following the use of antitoxin in severe cases of diphtheria, to the antitoxin itself. It was almost certainly caused by the disease, and not by the remedy.

The other charge brought against it by some men in New York was the destruction of the red blood cells. This was far from being proven. The most recent statistics on this subject were those of Dr. Billings, Jr., who had found that in thirty-one cases of diphtheria brought into the hospital almost moribund, an injection of antitoxin brought the blood up inside of two or three hours very materially.

The statistics brought forward to-day were seemingly overwhelmingly in favor of antitoxin. Dr. Beginsky's statement would be recalled that, before the use of antitoxin, the picture in the hospital was terrible. He used

the antitoxin when it first came out with a reduction of the average mortality of 33% to 45% down to about 20%. The supply of antitoxin failed, and for two months he was unable to get it, and immediately the death rate jumped up to over 40%. At the end of two months a supply was obtained again, and the death rate fell immediately. This seemed to Dr. Ravenel convincing by itself. In an epidemic in Paris the mortality was 51.1%. Antitoxin was used in the hospital, and in spite of the fact that the dosage was small, the death rate dropped down to 24%.

Dr. L. F. Bishop, of New York: Regarding thyroid extract in Graves' disease, it had been in use for some time in New York, and he had himself seen it used in a number of cases. In nearly every instance the disease was made worse. At a discussion before the New York Neurological Society, not long ago, it had been definitely decided that thyroid extract was entirely inappropriate in Graves' disease. At the same time the discussion brought out the general opinion that the symptoms of Graves' disease were due to hypersecretion of the thyroid gland, and on theoretical grounds the use of belladonna was recommended. Since that time Dr. Bishop had tried belladonna in four cases of Graves' disease, and had obtained very good results. He had tried belladonna before, in a casual way, and had not obtained good results, and the reason was that he had not used enough of it. Now he had adopted, in an experimental way, its use pushed to the physiological result. The patient was given ten drops of the tincture three times a day, the dose being increased one drop every day until it produced some dryness of the throat. In this way he had ameliorated the symptoms in every case, and it seemed to him that the belladonna acted better than anything else which

we had tried. Thyroid extract had uniformly made the cases worse, and it might be expected theoretically to do so.

Dr. Bishop said he had seen scleroderma cured by thyroid extract. Such a case had been shown at one of the societies. As soon as the thyroid extract was stopped the disease returned, but as long as it was administered the skin remained soft and pliable.

The treatment of myxœdema by thyroid extract had been entirely established. They had had in the Vanderbilt clinic in New York, he thought, about ten cases. Four of these he had had under his personal care, with Dr. Starr, the professor in charge, and all four were now apparently well. But they had found it necessary to keep up the thyroid extract indefinitely. It was interrupted for a time and then renewed.

The thymus gland had also been recommended in exophthalmic goitre. He had tried it in one case, for three months, using the English preparation. There was absolutely no effect.

Dr. Benjamin, of Camden, said he would be very much disappointed if antitoxin should prove not as efficacious as early statistics and laboratory experiments would seem to show that it should. At first he had been very enthusiastic because of the scientific process by which it was introduced and the excellent results which were heralded. It approached us from a favorable standpoint, and so with every form of treatment, when heralded in most enthusiastic manner, especially from certain quarters, a great many would try it. A man might try a treatment awhile and think it good, but all of us had had such experience, and yet had abandoned the treatment later.

About eight months ago Dr. Benjamin had felt sure that the mortality from diphtheria had been reduced by

antitoxin 50%, whereas later investigations had entirely changed his views, that is, basing them upon careful statistical reports. He had investigated a few of the items contained in Dr. McAlister's statistics, and had found them totally unreliable. For instance, New York was given a mortality of 50% from diphtheria before the introduction of the antitoxin treatment, and of 11% since. The fact was that to-day, with every appliance known and with the most careful management, in the Willard Parker Hospital the mortality was higher with than without the antitoxin treatment. It was claimed by some of the gentlemen connected with the Willard Parker Hospital that Dr. Winters ought to be taken to task because he had placed the hospital in a very unpleasant position before the public and the profession. Dr. Benjamin said he had waited very patiently to hear what criticism another gentleman connected with Willard Parker's, as was Dr. Winters, would have to make of the latter's paper, but after he had been heard from, all that it amounted to was that he deprecated the position into which the hospital had been placed. He had not met the solid phalanx of figures which Dr. Winters had presented, and which stood as the rock of Gibraltar, showing a death rate higher than it was for years before the antitoxin treatment.

It was to be noticed that Philadelphia had been left out of Dr. McAlister's statistics. The speaker had been to Philadelphia and had investigated their statistics, particularly at the Municipal Hospital under Dr. Welch, and there they had obtained entirely different results from those given in the author's paper for other cities. Why should there be such a variety of results?

It would be remembered that under another form of treatment Lœffler had had some seventy-one cases of

diphtheria in private practice without a death, and Dr. Benjamin had had a like experience, no deaths under that form of treatment. Thus he might jump to the conclusion that here was an invariable remedy. At the Philadelphia Municipal Hospital the death rate under antitoxin, tried carefully for a year, had been 28%, as against 25% before its use.

Regarding laryngeal cases, Dr. Benjamin quoted statistics, giving a death rate of 52% with antitoxin, 2% less than without antitoxin. But what did that prove? The difference was probably due to the disease being less severe in the former cases.

Dr. Benjamin said, in conclusion, that he had started into the investigation of this subject unbiased, and for the purpose of ascertaining the exact status of antitoxin. Although he had looked through the statistics of twenty thousand cases, still he had found that it would be necessary to wait awhile and to view statistics with a great deal of caution.

Dr. Titus inquired how many cases of diphtheria Dr. Benjamin had treated with antitoxin.

Dr. Benjamin replied that he had just given the reason why he had not employed antitoxin, and why Lœffler had not; namely, that one was not justified in changing from a treatment which gave no mortality or a smaller mortality to one which had a larger mortality.

Dr. William J. Chandler, of South Orange, called attention to the fact that antitoxin was intended only to act as an antidote to the diphtheritic poison, and he thought that had been proven conclusively in laboratory experiments, and he thought that if it were given sufficiently early it would have a similar effect in diphtheria occurring in practice. But it was not expected to cure the results of the toxin. The white of egg would pre-

vent injurious effects by corrosive sublimate if given early enough, but if given late it would do nothing to correct the destruction.

Dr. Baer, of Camden, thought a great deal had been said during this discussion in favor of antitoxin, and only two gentlemen had said anything against it, and one of these was said to have been prejudiced against it from the beginning. The opinion of only one or two men in the use of a remedy did not amount to anything against the evidence of thousands. Personally, he had had no death rate in diphtheria since he had used antitoxin—not a very large number of cases, it was true, but out of a similar number of cases before he had used antitoxin he had had a death rate. He believed that at least two would have died without antitoxin. They were laryngeal cases. Even if the death rate were not lowered, the use of the remedy would be justified by the fact that the patients who did recover showed convalescence earlier, in twenty-four to forty-eight hours. He did not believe that a pure serum would cause death, nor that it was the cause of albumen appearing in the urine. The albumen might be the result of streptococcus poisoning.

Dr. Barker: Regarding nuclein, he said he had been charmed with what theoretically it ought to do. He wished especially to speak of its use in the case of a child two years of age, with well-marked Pott's disease. Three grain doses were taken three times a day for several months, and the child was to-day comparatively well, and, according to his belief, was entirely well. He had found similar effects in ordinary follicular tonsillitis. He had also used it some in diphtheria, but had not felt like trusting it alone. It could be used hypodermically or by the stomach.

Dr. McAlister closed the discussion. With regard to

the case reported by Dr. Baker, he thought it would not be safe to draw conclusions from a single case. Dr. Deland's remarks were conservative, and Dr. Newton had endorsed antitoxin in a conservative way. Dr. Stokes had spoken encouragingly. Dr. Sullivan favored the treatment, but was not an enthusiast. Dr. Flagg had spoken of a bacillus, and Dr. McAlister had stated in his paper that where only the bacillus was the basis of the diagnosis, we could not be positive that all those cases were diphtheria. Dr. Titus had endorsed the antitoxin. Dr. Cantwell had had a remarkably favorable experience in tracheotomy cases, only three deaths in thirty cases, whereas ordinarily there was a fatal issue in at least 50% of tracheotomy cases. Dr. Ravenel had replied to some objections which had been made to antitoxin. Dr. Bishop had condemned thyroid extract in Grave's disease.

With regard to Dr. Benjamin's remarks, when the speaker (Dr. McAlister) had first read his paper at Camden, Dr. Benjamin gave an unfavorable opinion of this new treatment, and his remarks to-day showed that he had not changed his opinion. He had never used antitoxin in any case, and had condemned it. Dr. McAlister, on the other hand, recommended it because he had used it and had had good results.

Dr. Benjamin wished to make a correction; he had not condemned the antitoxin treatment; he had endorsed it; but he did not think it had been settled that it was the best treatment.

Dr. McAlister went on to say that the Philadelphia statistics had not been included in his tables, and probably for the reason which Dr. Benjamin had stated, on account of the large mortality. But one reason was that Dr. Welch, whom he had heard speak on two or three occasions, was accustomed to give very small doses when he

used antitoxin, yet he had admitted himself that the remedy, in order to be efficient, would have to be given in certain amount. Further, he had said that in the majority of his cases he had used it on the fifth, sixth and seventh days. Now, diphtheria on any one of these days was probably so far advanced that a good result would be obtained from no remedy whatever. Regarding Dr. Winters' views, referred to by Dr. Benjamin, the speaker quoted as follows from the reply of Dr. Winters' colleague at Willard Parker's, Dr. John W. Brannan: "Dr. Winters' experience with antitoxin has been confined to hospital practice. The time has passed when hospital experience can contribute much to the subject under discussion. One year ago the case was different. We had to rely almost entirely upon the experience of hospital physicians, who alone had a large number of cases at their disposal. Antitoxin must be administered early to get the best results, and we all know that cases do not reach the hospital until several days have elapsed from the beginning of the disease. It is in private practice that the disease can be recognized and treated early. We now have the experience of a large number of private practitioners, and they alone can speak with authority on the subject."

Dr. Brannan also said that there were in the room at the time of the discussion physicians who probably had treated from 20 to 100 cases. "And I do not think that Dr. Winters nor myself are competent to express an opinion in their presence as to the real value of antitoxin." Dr. Brannan has probably treated as many cases as Dr. Winters.

"I can hardly criticise Dr. Winters' views of antitoxin without commenting upon the attitude he has publicly assumed toward the Willard Parker Hospital. If Dr.

Winters' position is sound and his observations correct, the city of New York has been maintaining for eighteen months a hospital to which children have been taken and subjected to a method of treatment which is not only useless, but has in many instances led to the death of those children. This has been distinctly stated by Dr. Winters, and cases described by him in detail. These statements should be disproved if possible. His words have caused widespread harm among the people of New York and of the whole country.

"After barely three months of observation on some 150 hospital cases, Dr. Winters had decided for all time that antitoxin was absolutely without value; said that it produced great harm, even causing death in those to whom it was given. From that time he has become more fixed in his convictions, and has confirmed them by personal investigation of the hospitals of Europe."

Dr. McAlister quoted further from Dr. Brannan's reply to Dr. Winters, published in the *Medical News*, June 20, 1896.

Dr. Barker wished the Society to understand that he was not opposed to antitoxin. He was open to conviction. He had only stated that it was a double-edged remedy.

Reception of Delegates from Corresponding Societies.

Dr. Tuttle, delegate from Connecticut, expressed his great pleasure in being able to attend this meeting of the Medical Society of New Jersey, and referred briefly to the law passed by the Legislature regulating the practice of medicine in his State.

The President extended a hearty welcome to the delegates from other State Societies.

Dr. C. R. P. Fisher, Third Vice-President, then read his address, "Antisepsis and Antiseptics from the Standpoint of the General Practitioner."

Dr. Sproul moved that a vote of thanks be extended Dr. Fisher for his able essay, and that a copy be requested for publication. Carried.

Dr. Silvers wished to take issue with the essayist if he said, when speaking of conjunctivitis, that the accoucheur should use no means to cleanse the vagina before labor.

Dr. Fisher said that in ordinary labor, under ordinary circumstances, he was most emphatically opposed to douches of any kind before labor. He believed they did harm rather than good, unless there was some such indication as a gonorrhœal discharge. Under normal conditions he thought the secretions in the vagina were placed there for a beneficent purpose.

Dr. P. A. Harris, of Paterson, believed it was not the custom to discuss the essay of the Third Vice-President, but as an important question had been raised—the use of the vaginal douche before labor—he moved that an exception be made on the present occasion, and that discussion be allowed. Carried.

Dr. Newton moved that remarks be limited to three minutes. Carried.

Dr. Harris said he did not rise to differ from the author, but he thought these points required to be gone over and over, from year to year, in order to have them fixed in the minds of the profession. Dr. Fisher had told us about disinfecting the hands, about washing the vulva, having clean bed-linen, etc. But we could not always thoroughly sterilize the hands, and great danger came from allowing the hand to rest long in the vagina, perhaps in the cervix.

The old notion of aiding labor by such a course had been relegated to the past. For the purpose of bringing out discussion he offered the following resolution :

It is the sense of the New Jersey Medical Society that a man attending a case of obstetrics should examine his patient as infrequently as possible, and should not permit the hand to remain in the vagina or touch the uterus any more than possible.

Dr. Reading would second the views of Dr. Harris most heartily. It expressed what had been his practice for years. Certainly a physician attending a case of tedious labor need not make an examination often, and when he did it should be done quickly, as thereby there would be much less danger of infection.

Dr. Silver said that since his question seemed to have been the cause of this discussion, and the remarks made were to become a part of the literature of the Society, he felt that he ought to explain his position a little further. He had spoken of the vaginal douche in connection with purulent conjunctivitis. Not all women were honest in regard to such questions as gonorrhœa, etc., and he believed in taking precautions where there was a possibility of being deceived or mistaken.

Dr. Ireland agreed with the author in every particular. He did not believe in washing out the vagina before labor in ordinary cases, nor did he use the syringe after labor unless there was some special indication for it. Nature had provided for these things. The lochia was ordinarily pure.

Dr. Shepherd remarked that it seemed to be the desire of some members of this Society to restrict and control the action of the intelligent and well-educated practitioner. While these papers were right and proper, and the physicians desired the information which they gave, he did not believe that they wanted to be too closely or too severely restricted in carrying out operations, etc. After an experience of thirty-five years in the practice of medicine, and an attendance on four thousand cases

of obstetrics in private practice, he believed labor was a natural function, and that the less we interfered with it the better it would go. It was known to all of us that there were thousands of cases which passed through labor successfully and well, without the assistance of either physician or midwife. Therefore, too much interference before labor and after labor was detrimental. But he arose on this occasion to enter a protest against restricting physicians in the exercise of their own judgment in the management of their cases. He felt that yesterday the Society had done wrong in recommending the injection of the eyes of all the new-born with a solution of nitrate of silver. It was unnecessary, and an interference with a healthy function or condition in most cases.

Dr. Floy McEwen, of Newark, read an essay, "Chloroform Narcosis."

On motion, a vote of thanks was extended Dr. McEwen for his essay, and a copy was requested for publication in the Transactions.

The report of the Auditing Committee was then read, as follows:

The undersigned Auditing Committee have examined the Treasurer's accounts and find the same correct.

We deem it advisable to recommend an assessment of one dollar ($1.00) per capita to meet current expenses of the coming year.

Respectfully submitted,

DANIEL A. CURRIE,
D. M. SKINNER,
S. V. D. CLARKE,
Committee.

Dr. W. B. Johnson moved that the report be received, and the assessment for next year be one dollar. Carried.

The report of Committee on Fellows' Prize Essay, was read.

A motion was made to receive the report and that the recommendation be complied with. Carried.

On motion of Dr. Newton the question of the prize essay was referred back to the Committee.

On motion of the Secretary, the communication from Union County was referred to Committee on Ethics.

The report of the Nominating Committee was read by Dr. Hollingshead, as follows:

Your Committee on Nominations would respectfully submit the following names for your consideration:

President—T. J. Smith.

First Vice-President—D. C. English.

Second " —C. R. P. Fisher.

Third " —Luther M. Halsey.

Corresponding Secretary—E. L. B. Godfrey.

Recording Secretary—Wm. Pierson.

Treasurer—Archibald Mercer.

Standing Committee—Henry Elmer, President, three years; Henry Mitchell, three years; M. Lampson, two years; Charles Young, two years; Wm. H. Iszard, one year; Stephen Pierson, one year.

Place of next meeting, Atlantic City, fourth Tuesday in June, 1897.

Committee of Arrangements—A. Boardman Reed, Chairman; Philip Marvel, W. H. Iszard, George E. Redding, A. H. Lippincott and J. B. Thompson.

Business Committee—H. R. Baldwin, W. B. Johnson, Geo. Van Wagenen, E. Hollingshead, Updyke Selover.

Prize Essay—Dr. Harris.

Delegates to American Medical Association—Wm. R. Little, Alex. Marcy, of Burlington county, D. H. Oliver, H. F. Palm, Frank Cantwell.

Delegates to Massachusetts State Medical Society—Elmore Stites, D. A. McAllister.

Delegates to Rhode Island State Medical Society—Geo. Redding, Geo. McLaughlin.

Delegates to Connecticut State Medical Society—Thomas J. Jackson J. A. Exton.

Delegate to New Hampshire State Medical Society—E. B. Silvers.

Delegates to Pennsylvania State Medical Society—Elmore Stites, B. W. Sullivan, Hecht Barwis.

Delegates to New York State Medical Association—C. H. Andrus, A. Currie, P. A. Harris.

Delegates to Maryland State Medical Society—H. A. Wilson, E. D. Leidy.

Delegates to American Pharmaceutical Association—Henry L. Coit, B. W. Macfarland, N. B. Oliphant.

Respectfully submitted,

C. H. ANDRUS,

Chairman.

It was moved to accept the report. Carried.

Election of officers.

It was moved that the Secretary cast the ballot of the Society for the nominees. Objection was made and the President sustained the objection.

Dr. Osborn nominated Dr. J. H. Love, of Montclair, for Third Vice-President.

Dr. Taylor nominated Dr. D. Strock as member of the Standing Committee for two years.

Dr. Johnson moved that the Secretary cast the ballot for all the officers except the Third Vice-President and Standing Committee. Objection having been made, the President sustained the objection.

The Society proceeded to ballot for President and Vice-Presidents. Drs. Barker and Sproul were appointed tellers.

While the ballot was being taken, it was moved that the Secretary cast the ballot for Corresponding Secretary, Recording Secretary and Treasurer. The motion was carried, and the Secretary cast an affirmative ballot for the three nominees named.

On motion, the Secretary was directed to cast the ballot for the Standing Committee as named by the Com-

mittee on Nominations, the name of Dr. Strock having been withdrawn. The Secretary cast an affirmative ballot. The President announced that all had been duly elected.

The nominees for the Committee of Arrangement, for the Business Committee, for Committee on Prize Essay, and Delegates to Corresponding Societies, were, on separate motions, duly elected.

The tellers reported that 79 ballots had been cast for President, First, Second and Third Vice-Presidents. For President, Dr. T. J. Smith had received the whole number. For First Vice-President, Dr. D. C. English had received the whole number. For Second Vice-President, Dr. C. R. P. Fisher had received the whole number. For Third Vice-President, Dr. L. M. Halsey had received 42; Dr. J. J. H. Love, 37.

Dr. Baldwin moved that the election of Dr. Halsey be made unanimous. Carried.

The President announced as the result of the ballot that Dr. T. J. Smith had been elected President; Dr. D. C. English, First Vice-President; Dr. C. R. P. Fisher, Second Vice-President; Dr. Luther M. Halsey, Third Vice-President.

On motion, the place of meeting selected by the Nominating Committee, Atlantic City, was adopted.

On motion of the Secretary the resignation of Dr. C. R. P. Fisher, of Bound Brook, as Permanent Delegate, was accepted.

Dr. English moved that the Secretary be authorized to have published in pamphlet form two thousand copies of the By-Laws, one thousand of which should be distributed by the Standing Committee among the District Medical Societies, with copies of the Transactions. Carried.

The Secretary moved that the present Committee on

By-Laws revise the fee-bill and publish the revision with the By-Laws. Carried.

Dr. Barker said he desired to call attention to a matter of great interest to the profession of the State. The winter of 1895 the Legislature appointed a committee to investigate the number and condition of epileptics in the State. That committee sent out circulars to every physician in the State, and to every institution, both penal and benevolent, in order to ascertain as nearly as possible how many epileptics there were in the State. Replies had been received from the majority of institutions and about five hundred physicians. Records were obtained of about 1,060 epileptics throughout the State. Of course there were many more, for it had been found by other States that not more than one in three was reported. It was fair to assume that there were 2,500 epileptics in the State, and a number of them were in institutions. There was a large number of asylums for the insane, and there, of course, they could not receive proper treatment. They had a bad influence upon other patients, and other patients had a bad influence upon them.

A very carefully written report had been made to the Legislature, and a bill was passed by the Senate and Assembly authorizing the formation of an epileptic colony, but the Governor did not approve it because it called for the expenditure of a certain amount of money. The Governor had acted from a sense of economy.

The value of treatment of epileptics in colonies was shown by the results obtained at Bienfeld, Germany, where they had obtained 6% permanent cures, a result not known in other parts of the world, while in the other cases there was much improvement. In such institutions these patients were much more contented and better in

every way. They gradually became nearly self-supporting, so that it was a question of expense only at the start.

Dr. Barker then offered the following resolutions, which were adopted:

WHEREAS, There are many epileptics scattered in the various benevolent and penal institutions of the State, where they are necessarily improperly cared for, and at the same time are objects of dread, and of more or less aversion to those around them; and,

WHEREAS, Experience has amply demonstrated that these unfortunates are not only far more contented with their sad lot and deplorable condition when gathered into a colony where they can engage in some congenial occupation and be surrounded by sympathetic companions, but they have many less seizures and the percentage of recovery is much greater than under any other circumstances or method of treatment; and,

WHEREAS, The welfare of this large class of unfortunate fellow-citizens should, in our opinion, be paramount to any considerations of mere economy; therefore, be it

Resolved, That this Society hereby records its sorrow and regret that the Governor of our State withheld his signature from the bill authorizing the formation of a colony for epileptics, after it had passed both houses of the Legislature.

Resolved further, That we will use our best endeavors to bring about the enactment of another bill in the hope that it may meet a better fate. thus ameliorating the condition of a large class of unfortunates.

Dr. Currie offered the following resolutions relating to longer meetings:

Resolved, First—That the future meetings of this Society shall be continued two days, viz.: from Tuesday at noon until Thursday at noon.

Second—That the President shall, at each meeting, appoint a Reporter for each of the following subjects, viz: Practice of Medicine, Surgery, Obstetrics, Gynecology and Pediatrics, and also for any other subject which he may at the time deem sufficiently important.

Third—It shall be the duty of the Reporter on each subject to read a paper, briefly reviewing any new and important discovery

made during the preceding year, together with such other matter relating to the subject as he may think of interest to the Society, and a discussion on the paper shall be led by a person appointed for that purpose.

Fourth—The Business Committee may, at their option, arrange for short papers on any medical subject or the allied sciences, which shall be open for discussion.

Fifth—All members are requested to read short papers, not exceeding fifteen minutes in lengh, or report interesting cases, to be followed by discussion, limited to ten minutes for each speaker.

Dr. English said he would second the motion, but thought it should be revised since a part of it was in conflict with the new By-Laws. He thought it would be wiser to meet Monday evening and adjourn Wednesday noon. He moved to amend Dr. Currie's motion to that effect.

Dr. Pierson remarked that the time of meeting next year had already been fixed on adopting the report of the Nominating Committee.

The President put the motion to adopt the resolution, and declared it lost.

Dr. Henry Mitchell moved that Dr. Benjamin's paper be read by title and referred to the Committee on Publication. Carried.

Dr. Mitchell offered the following resolution, which was adopted:

WHEREAS, The exhibition of surgical instruments, medical publications, drugs and chemicals during the session of this Society should be conducted entirely under the control of this organization,

Resolved, That hereafter no such exhibition shall be allowed in connection with the meetings of this Society unless the exhibits shall be displayed in apartments designated by the Committee of Arrangements.

The President appointed Drs. Richard C. Newton, Montclair, and H. M. Weeks, Trenton, as Essayists for next year.

The Prize Essay Committee: William Elmer, C. J. Kipp and P. A. Harris.

Standing Committee granted the usual power in regard to publishing of the Transactions.

Somerset District Medical Society placed Dr. J. C. B. Taylor in nomination as Permanent Delegate in place of Dr. E. R. P. Fisher, resigned.

The following report was received after adjournment:

Your Committee to whom was referred certain communications received by the Corresponding Secretary, would respectfully submit the following report:

The first communication was from Dr. W. S. Rowley, Corresponding Secretary of the World's Congress cf Medico-Climatology, organized at the World's Columbian Exhibition at Chicago, in 1893, inviting this Society to send delegates to the next meeting, which will probably be held in New Orleans in November, 1896.

Your Committee recommend that this communication be received, and that the request be complied with and delegates be appointed to represent this Society.

The second document is a circular and copy of special regulations relating to the second Pan-American Medical Congress, to meet in the City of Mexico on the 16th, 17th, 18th and 19th of November, 1896. Your Committee recommend that this communication be received, and that any member of this Society desiring to attend such meeting be furnished with proper credentials by our Secretary.

The third communication is a letter from Dr. James L. Spencer, President of the Medical Society of the State of New York, proposing the organization of a small delegated body, representing each State Medical Society in the United States, to meet at Washington for a brief period once each year, during the session of Congress, to use their influence to secure the enactment of wise laws relating to public health and medical education, and asking this Society to appoint three delegates and three alternates to attend a conference in

Washington, D. C., at some time during the ensuing year. Your Committee recommend that this communication be received, but that no action be taken.

Respectfully submitted,

ALONZO PETTIT,
WALTER B. JOHNSON,
F. V. CANTWELL,
Committee.

Adjourned.

WILLIAM PIERSON,
Recording Secretary.

DR. R. C. SHULTZ,
Stenographer.

APPENDIX TO THE MINUTES.

[APPENDIX No. I.]

REPORT OF THE CORRESPONDING SECRETARY.

CAMDEN, N. J., June 23d, 1896.

To the Medical Society of New Jersey:

The Corresponding Secretary respectfully reports that he has attended to the duties that have devolved upon him during the past year. The Transactions of the Society have been forwarded to the Corresponding Secretaries of the States and Territories, to the Honorary Members, to the State Library at Trenton, the New Jersey Historical Society, the Libraries of Princeton and Rutgers Colleges and the Pennsylvania and Cooper Hospitals, the American Medical Association, the New York Academy of Medicine, the College of Physicians and Surgeons of Philadelphia, the Boston Medical Library, the Library of the Surgeon-General's Office, U. S. A., and to the Library of the Camden City Medical Society.

In return, the Transactions of the Medical Societies of Colorado, Connecticut, Iowa, Illinois, Kentucky, Louisiana, Maine, Massachusetts, Michigan, Nebraska, New York, North Carolina, Oregon, Texas, Virginia and Wisconsin have been received, with those of the College of Physicians and Surgeons of Philadelphia, and have been deposited in the department devoted to Medicine in the State Library at Trenton.

Communications have been received from Dr. James D. Spencer, President of the Medical Society of New York, concerning the holding of the annual meeting of State Societies at the Capital of each State during the session of the Legislature; from Dr. W. S. Rowley, Corresponding Secretary of the World's Congress of Medico-Climatology, suggesting the appointment of delegates from this Society to the next meeting of the Congress, at New Orleans, in November, and from Surgeon-General George M. Sternberg, suggesting that resolutions be adopted by this Society embodying the sentiment of the resolutions of

the American Medical Association on the question of vivisection and against the restriction of animal experimentation for scientific purposes in the District of Columbia.

Respectfully submitted,
E. L. B. GODFREY M. D.,
Corresponding Secretary.

[APPENDIX II.]

TREASURER'S REPORT.

DR. ARCHIBALD MERCER, *Treasurer*, in account with the Medical Society of New Jersey:

1895.	*Dr.*	
July 1.	Interest on U. S. Bonds	$25 50
Oct. 1.	" " " "	25 50
1896.		
Jan. 1.	" " " "	25 50
April 1.	" " " "	25 50
		$102 00
To Cash in Bank, June, 1895		1,192 68
" U. S. Bonds		2,250 00
		$3,544 68

1895.	*Cr.*	
June.	By paid Dr. J. W. Stickler, for Committee on Tuberculosis	$20 00
" "	Dr. E. L. B. Godfrey, Corresponding Sec'y.	14 95
" "	Dr. H. W. Elmer, Standing Committee	14 79
" "	Dr. W. Pierson, Recording Secretary	28 46
July 6. "	R. C. Shultz, Stenographer	50 00
Oct. 27. "	L. J. Hardham, Transactions	707 25
1896.		
April 18. "	Orange Publishing Co	2 25
" 23. "	M. A. Hansbett	11 80
June 3. "	Orange Chronicle Co	16 00
		$865 50
To Cash balance in Bank, June 12, 1896		429 18
" U. S. Bonds		2,250 00
		$3,544 68

Respectfully submitted,
ARCHIBALD MERCER,
Treasurer.

[APPENDIX III.]

REPORT OF COMMITTEE ON HONORARY MEMBERSHIP.

June 23d, 1896.

To the Medical Society of New Jersey:

The Committee on Honorary Membership and Degree of Doctor of Medicine, respectfully report that they have had presented to them the names of Dr. A. Jacobi, of New York, and Dr. V. M. D. Marcy, for Honorary Membership. Both of these gentlemen were proposed at the last meeting of this Society.

Dr. Abraham Jacobi has a distinguished medical record and is Professor of diseases of children, etc., in the College of Physicians and Surgeons of New York City. He was a student in medicine at the Universities of Greefswald, Gottingen and Bonn, receiving from the latter institution the degree of M. D. in 1851.

Dr. Virgil M. D. Marcy is the oldest and most prominent practitioner of medicine in Cape May County, in this State, having been identified with the medical profession for half a century, and is still in active practice in Cape May City. He is a graduate of Yale College, class of '44. and of the medical department of the University of Maryland in 1846. We recommend that Drs. Abraham Jacobi and Virgil M. D. Marcy be duly elected as Honorary Members of this Society.

H. GENET TAYLOR.

[APPENDIX IV.]

REPORT OF DELEGATE TO CONNECTICUT STATE MEDICAL SOCIETY.

RAHWAY, N. J., June 23, 1896.

Your delegate to the Medical Society of the State of Connecticut would respectfully report that the one hundred and fourth meeting of that Society was held in Warner Hall, New Haven, May 27th and 28th, with President Seth Hill presiding.

Having arrived the night previous to the convention, was able to accept the invitation of Dr. Swain, who entertained at his spacious residence all the delegates of their Society, with the visiting ones, thus adding the pleasure of an early introduction to each.

The Society, at its meetings, seemed to have culled the quintessence of the most advance and advancing practical ideas, particularly in having subjects with powerful apparatus (by Francis N. Loomis, of Binghamton,) to show the penetrating powers of the Röntgen rays in surgical cases. The paper by M. M. Johnson, of Hartford, on "The Technique of Removing the Appendix Vermiformis Cæci," was very able and exhaustive, and the cases reported by Harmon G. Howe, of Hartford Hospital, on "Abdominal Surgery," for the removal of the diseased appendix in an advanced stage, the patients being even in a semi-collapsed condition. A number of successful cases were presented in detail. In the discussions which followed, many agreed that though early operations were most desirable, yet in all cases *nil desparandum* should be our motto. Your delegate was much impressed with the character of the medical and surgical treats. The papers were so original—full of information and merit. It would take too much space to speak of all the meritorious articles, but a passing tribute must be paid to Kate C. Mead, of Middletown, in her well-expressed and well-read argumentative article on "Abdominal Massage in the Treatment of certain Uterine Diseases."

On the last page of their program is stated the time, when and where each State Medical Society meets, with a request that any delegate who wishes to attend any of these should send his name to the Nominating Committee. I would suggest adopting a like plan, as it would insure the delegate's attendance and create more cordial relations with sister societies.

Their annual dinner, at the New Haven House, on the night of their last day's session, was in all respects of the choicest. Many prominent members of the profession of Theology, Law, Army, as well as of our own, being present. While the convivial part of this meeting was second to none, yet they have not allowed their Society's meeting to deteriorate in any particular, from an intellectual standpoint, and I found, much to my comfort, that our Society's recognized standard and seniority made me, as your representative, the recipient of many appreciative courtesies.

Respectfully submitted,

E. B. SILVERS.

[APPENDIX V.]

REPORT OF DELEGATES TO MASSACHUSETTS STATE MEDICAL SOCIETY.

To the Chairman of the Standing Committee:

The delegates appointed at the last annual meeting to attend the meeting of the Massachusetts State Medical Society performed that duty to their entire satisfaction, and we hope to the satisfaction of our State Society. The cordiality with which we were received by the Reception Committee fully justified the high opinion we had entertained of New England hospitality, and impressed us with strong convictions that such friendly interchange of visits would be of no inconsiderable advantage to all Medical Societies. Every possible comfort was provided for, and a diversity of entertainment from which to select, could not but help to make stranger delegates feel that they were more than welcome.

Many papers were offered of medical and surgical interest, and ably discussed, but the master oration was delivered by Dr. H. P. Bowditch, of Boston, on the subject of vivisection, and interestingly set forth its necessity in the advancement of medical science. The exhibition of the X-rays taken by the Röntgen process, was fully demonstrated in Exhibition Hall, on the living subject, and all present had ample opportunity to satisfy themselves of its utility as an addition to the medical and surgical armamentorium. The display of surgical instruments, books, electrical and orthopedic apparatus, artificial limbs, carriages, ambulances, etc., was large, while not a single pill, tablet, tincture or drug of any kind could be found in the building.

The annual dinner was a feature not to be forgotten, and was served in excellent style in Banquet Hall. The Fellows of the Society called in order of seniority, and visiting delegates marched in procession to the tables, led by a brass band, where 1,000 people (presumably doctors) rested and refreshed themselves. When cigars were lighted the assembly was addressed by the Governor of the State, the Mayor of Boston, Bishop Lawrence and others, after which an excursion down the harbor, given by the city authorities, was enjoyed by the members of the Society and visiting delegates.

Respectfully,

J. A. EXTON, M. D.,
SAMUEL HELFER, M. D.,
Delegates.

[APPENDIX VI.]

REPORT OF COMMITTEE ON PREVENTION OF PURULENT CONJUNCTIVITIS.

The committee appointed at the last meeting to inquire whether the methods for the prevention of purulent conjunctivitis in the new-born, now in use in hospitals, accomplish what is claimed for them by their respective authors, and if so, to recommend the method which, in their opinion, is best adapted for private practice, have the honor to report as follows:

Personal observation, interviews with physicians in charge of large lying-in hospitals, and study of the literature of the subject, have forced upon us the conviction that the development of the blennorrheic conjunctivitis of the new-born can be prevented by disinfection of the eyes, and that the method recommended for this purpose by Prof. Credé, of Leipsig, Germany, accomplishes all that is claimed for it by its distinguished author. This method, of which a full description is appended to this report, has been employed in many of the largest lying-in hospitals in this country and abroad for the last fourteen years, and, so far as we have been able to learn, has, in almost every instance in which it was employed, strictly in accordance with the directions given by Dr. Credé, prevented the development of the opthalmia neonatorum. In our opinion this method is as well adapted to private practice as to hospitals, and as it can be carried out without danger to the eyes of the infant by untrained hands, we would recommend it also for the use of midwives. The fact that opthalmia neonatorum is still quite prevalent amongst children born in private dwellings, (not less than thirty such cases were treated alone in the out-door department of the Newark Charitable Eye and Ear Infirmary during the past year), would seem to show that Credé's method is not largely employed by medical men and midwives in private practice, and we would, therefore, urge the members of this Society to cooperate with us in making the value of this method more widely known. We feel confident that if Credé's method were employed in all the new-born, or at least in all whose mothers have not been repeatedly and thoroughly examined by modern methods before the onset of the labor and found to be absolutely free from infectious disease of the genital tract, opthalmia neonatorum would soon be unknown and many eyes saved from destruction.

With a view to making the method also known amongst the midwives and nurses, we would suggest that this Society request the State Board of Health to publish Credé's method in the form of a circular, and to distribute it freely. We would also suggest that this Society recommend to the State Board of Medical Examiners not to grant licenses to practice midwifery to persons not familiar with this method, or who have not demonstrated their ability to properly carry it out.

Respectfully submitted,

CHARLES J. KIPP, Chairman,
WALTER B. JOHNSON,
WM. R. POWELL.

CREDE'S METHOD OF DISINFECTING THE EYES OF THE NEW-BORN.*

After severing the unbilical cord, the infant's skin is to be freed in the usual manner of its sebaceous coat and the blood, mucus, etc., adherent to it; the infant is then placed in the bath, and while there the skin of the eyelids is thoroughly cleansed of vernix with a cloth or, better still, with absorbent cotton, wet with clean water taken from a separate vessel, but not with the water in the bath tub. The child is then transferred to a table, and while there, before it is dressed, each eye is slightly opened by means of two fingers, and a single drop of a two per cent. solution of silver nitrate, hanging from the end of a glass rod, is brought close to the surface of the cornea and made to fall on its central part. Nothing further is done to the eyes. A second application of the silver nitrate must never be made during the following twenty-four or thirty-six hours, even if slight redness and swelling of the eyelids with mucus secretion should follow the first application.

No special importance is attached to the order in which the different steps of this method are carried out. It is certainly not necessary to drop the silver solution in the eyes before the cord is severed. In private practice, and in cases in which sufficient trained assistance is wanting, it is to be recommended, in order not to lose control of the lying-in woman during the third period of the labor, to cleanse the eyes externally immediately after severing the cord, and then to drop the silver solution into the eyes, all of which can be done in a very short time; then the afterbirth is to be removed, and when this has been done the child is put into the bath.

*Die Veshistung der Augenestzimdung der Neugeboveners Berlin, 1884.

The silver nitrate solution is best kept in a dark colored bottle with a ground glass stopper. The neck of the bottle should measure about half an inch in diameter. The glass rod used is six inches long and very smooth and round at each end. The silver solution will keep for many months, but it is best to renew it about once in six weeks. The genitals of the lying-in woman are, for the sake of cleanliness, to be irrigated with clean water or an antiseptic solution, but the irrigation may be omitted, as it does not prevent the infection.

[APPENDIX No. VII.]

REPORT OF COMMITTEE ON REVISION OF CHARTER AND BY-LAWS.

THE MEDICAL SOCIETY OF NEW JERSEY was organized (1766) as a voluntary association for mutual improvement and for promoting the welfare of the medical profession. "Every gentleman of the profession in the province" was invited to become a member.

It received its first charter by an act passed June 2, 1790: "*For incorporating a certain number* of the physicians and surgeons of this State by the style and title of* THE MEDICAL SOCIETY OF NEW JERSEY."

This act expired by its own limitation in 1815, and a new act of 1816 provided for a District Society in each County, to make their own laws and regulate their own concerns, provided they were not contrary to the Constitution of the State Society.

This act of 1816 placed the control of the Society in the hands of fifteen managers, to be elected annually by a plurality of votes. This board was empowered to choose its own officers and make such by-laws and regulations for the due management of its concerns as might be deemed necessary. At the Annual Meeting of the Society, in May of the same year, it

*Fifty-two are named in the act as corporators.

constituted District Societies in the counties of Middlesex, Somerset, Monmouth, Essex and Morris counties.

The terms of this charter, placing the control of the Society in the hands of a board of managers, an *imperium in imperio*, was not acceptable to the profession, and in 1818 a supplement was passed providing that the Society should be composed of four delegates from each District Society which were or might hereafter be formed, who, with the officers for the time being, should constitute the Society.

This supplementary act, constituting the Society by delegates of the local societies, placed it on a new basis and secured the cordial sympathy and co-operation of the physicians of the State. The State Society was thus made the creature of the local sociéties, and derived its life from their delegates annually elected. The mode of constituting the Society has undergone no substantial change since 1818.

In the act of 1823, the Presidents of the Society "shall rank as Fellows and be entitled to all the rights and privileges of delegated members."

In 1864 the Society, desirous of surrendering "all its special privileges and pecuniary immunities, and to reorganize, as nearly as possible, upon the voluntary basis," applied for and obtained its present charter, which went into effect on its centennial year.

CHARTER, 1866,

OF

THE MEDICAL SOCIETY OF NEW JERSEY.

WHEREAS, The Medical Society of New Jersey is approaching its centenary anniversary; and, whereas, the Society, by petition, has expressed a desire to surrender all its special privileges and pecuniary immunities, and to reorganize, as nearly as possible, upon the voluntary basis ; therefore,

1. BE IT ENACTED, *by the Senate and General Assembly of the State of New Jersey*, That the Medical Society of the State of New Jersey, already incorporated by the style and name of "The Medical Society of New Jersey," shall continue to be a body corporate and politic, in fact and in name, and shall and may have and use a common seal, and alter the same at their pleasure; and that the said Society shall be composed of delegates (not less than three), chosen by and from each of the district or county societies, which now are, or which under the authority of the said Society may be hereafter instituted; the officers for the time being shall be *ex-officio* members of the said Society, independently of the authority of delegation; and all persons who shall have been, or may hereafter be, Presidents of the Society, shall rank as Fellows, and be entitled to all privileges of delegated members.

2. AND BE IT ENACTED, That the Society shall have the authority to confer the degree of M. D., under such rules and regulations as they may adopt, which degree shall be deemed sufficient evidence of a regularly educated and qualified practitioner of the healing art; and hereafter no one shall be admitted to membership in any District or County Society having connection with this Society, unless he shall have received the said degree of Doctor of Medicine, or been admitted *ad eundem* from some other medical authorities, which this Society shall deem proper to recognize; *provided*, that this shall not be construed so as to prohibit any person from becoming a member of any District Society, who has received the degree of M. D. in any school recognized by, or in affiliation with, the "American Medical Association," previous to the passage of this act.

3. AND BE IT ENACTED, That this Society shall have power to prescribe the duties of its officers and members, fix their compensation, assess from time to time an annuity upon the District or County Societies in the ratio of their membership respectively, and adopt such rules and regulations for the due management of the concerns of this and the several District

Societies as may be deemed necessary; *provided*, the same be not contrary to the laws of this State; and may hold any estate, real and personal, the annual income of which shall not exceed one thousand dollars.

4. AND BE IT ENACTED, That this act shall be considered a public act, and shall take effect on the fourth Tuesday of January, eighteen hundred and sixty-six; and that the act entitled "An Act to incorporate Medical Societies for the purpose of regulating the practice of physic and surgery in this State," passed January twenty-eighth, eighteen hundred and thirty, and all supplements thereto, be and the same are hereby repealed.

BY-LAWS

OF THE

MEDICAL SOCIETY OF NEW JERSEY.

Adopted upon Report of Committee on Revision, June 24, 1896.

CHAPTER I.

TITLE AND MEETINGS.

Section 1. The name and title of the Society shall be "The Medical Society of New Jersey."

Sec. 2. The Society shall consist of Fellows, Delegates and Officers.

Sec. 3. All ex-presidents are Fellows, and all officers of this Society are members by act of incorporation.

Sec. 4. Delegates shall be chosen by and from the members of District Societies. Each District Society shall be entitled to three delegates at large and one additional delegate for every ten members. Reporters for District Societies who furnish their reports to the Standing Committee at least ten days before the annual meeling of the State Society, and the chairmen of all committees who have written reports to present, shall be delegates *ex-officio*, in addition to the regular delega-

tion. All delegates, except permanent delegates, shall be chosen annually at the annual meeting of each District Society. At the annual meeting of each District Society in 1898, and once in three years thereafter, and at no other time, except in cases where vacancies occur as specified in the last paragraph of this section, each District Medical Society may, by individual ballot, by a three-fourths vote of the members present, select one delegate, who shall be eligible for acceptance by the Medical Society of New Jersey as a permanent delegate, and District Medical Societies having thirty or more members may also, every third year, select in the same manner one additional permanent delegate for each thirty members; *provided*, that every permanent delegate shall have been a member in good standing of a District Medical Society for five years; and, *provided*, that no District Medical Society shall be entitled to more permanent delegates than one-fourth of its membership; *provided*, further, that they present a certificate, signed by the President and Secretary of their District Society, in following form:

"This is to certify that —— ——, M. D., was nominated for permanent delegate to the Medical Society of New Jersey, by the District Society for the County of ———, according to the requirements of the by-laws of the State Society."

A three-fourths vote by ballot of all members present shall be necessary to the acceptance of permanent delegates by the Medical Society of New Jersey.

Permanent delegates shall have all the rights and privileges of annual delegates.

The following classes of permanent delegates shall be deprived of their privileges as members of the Medical Society of New Jersey, and their names shall be stricken from the roll: I. Those who lose their membership in their respective District Medical Societies. II. Those who shall have failed to attend two consecutive annual meetings of the Medical Society of New Jersey.

All permanent delegates whose District Medical Societies

are in arrears for dues to the Medical Society of New Jersey, shall be suspended from all the privileges of membership in the Medical Society of New Jersey until such arrears are paid.

The names of all permanent delegates stricken from the roll, and the names of all permanent delegates who may have died, shall be reported by the Corresponding Secretary of the Medical Society of New Jersey, to the Secretaries of the District Societies which they respectively represent, and the said District Societies may select in manner herein before set forth members to fill the vacancies.

Sec. 5. To the Fellows, Officers and Delegates (*ex-officio* included), shall be committed the management of the business and affairs of the Society.

Sec. 6. All members of the District Societies, not in arrears to this Society, are entitled to seats as corresponding members, and when they report themselves to the Secretary, their names shall be entered on the minutes.

Sec. 7. The Medical Society of New Jersey shall hold its annual meeting in the month of June, at such time and place as shall have been designated at the previous meeting.

Twenty delegates, representing at least four District Societies, shall constitute a quorum.

Sec. 8. The annual delegates composing this Society shall at every annual meeting produce a certificate of delegation, signed by the President or Secretary of the District Society of which they are respectively members; and no annual delegate can be considered a member without such certificate, nor unless the society of which he is a delegate shall have paid its annual assessments; the *ex-officio* delegates shall furnish a certificate from the Standing Committee that they have fulfilled the conditions of their appointment; and it shall be the duty of each District Society to furnish annually a list of its regularly attending members, with their respective postoffice addresses, which lists shall govern in determining the number of delegates to which each district is entitled, under the provisions of Sec. 4, Chapter I.

ORDER OF BUSINESS.

Sec. 9. 1.—The President, or in his absence, one of the Vice-Presidents, shall call the meeting to order. In case of the absence of all these officers, a President pro tempore shall be chosen by a viva voce vote.

2.—Report of the Committee on Credentials.

3.—Calling the roll.

4.—Report of the Committee of Arrangements.

5.—The minutes of the last annual and special meetings shall be read for information, correction and approval.

6.—Election of permanent Delegates.

7.—Report of the Committee on Business.

8.—Any business which requires early consideration may by permission be introduced.

9.—Report of the Committee on Ethics and Judicial Business.

10.—Announcement of committees by the President.

11.—Annual address by the President.

12.—Report of the Standing Committee.

13.—Report of the Treasurer.

14.—Report of the Corresponding Secretary.

15.—Report of Committee on Honorary Membership and Honorary Degree of Doctor of Medicine.

16.—Receiving and acting upon applications for the degree of M. D., and nominations for honorary membership.

17.—Report of Committee on Treasurer's Accounts.

18.—Reports of Delegates to, and reception of Delegates from Corresponding Societies.

19.—Reading of essays by the appointed essayists.

20.—Reading of such papers approved by the Business Committee.

21.—Report of the Committee on Nomination of Officers.

22.—Election of officers.

23.—Miscellaneous business.

24.—Adjournment.

The order of business may be modified by the Busines Committee, or it may be temporarily suspended by a majority vote of the members present.

Sec. 10. The President, or in case of his absence or inability, the First, Second or Third Vice-President, in numerical order, is authorized to call special meetings, when applied to by any seven members, representing at least four different District Societies, and cause notice thereof to be given by the Secretary at least ten days previous to the meeting.

Sec. 11. A vote of two-thirds of the members present shall be necessary to suspend or expel any member; and the accused member shall first have notice and time given for defence.

CHAPTER II.

OFFICERS AND THEIR DUTIES.

Sec. 1. The officers of this Society shall consist of a President, First, Second and Third Vice-Presidents, Corresponding Secretary, Recording Secretary, Treasurer and members of Standing Committee.

Sec. 2. It shall be the duty of the President to preside at all the meetings of the Society, preserve order, state and put questions, appoint committees, except when otherwise provided for, call for reports of committees, enforce the observance of the By-Laws, regulate the business of the Society, and perform such other duties appropriate to his office as the Society shall assign him. At the annual meetings he shall deliver an address on some suitable subject. He shall fill all vacancies in the offices and committees of the Society occurring during the interim between the meetings by reason of death, resignation, or removal from the State. All persons so appointed shall serve until the next annual meeting. He shall have the custody of, and, on proper occasions, use the seal of the Society. He shall grant with his signature and with the seal of the Society, all diplomas ordered by the Society; receive the fees, and pay the same to the Treasurer.

Sec. 3. In the absence or disability of the President, one of the Vice-Presidents, in his numerical order, shall preside at the meetings of the Society; and in case of a vacancy in the office of President, caused by death, resignation or removal, all the duties pertaining to it shall devolve on the said Vice-Presidents; the Third Vice-President shall read an essay upon some appropriate subject at the first annual meeting, subsequent to his election.

Sec. 4. The Corresponding Secretary shall have the charge and custody of all letters and communications transmitted to the Society, and shall read and transcribe in a book such of them as may be considered worthy of preservation; it shall be his duty, agreeably to the directions of the Society, to write and answer letters, and in general to manage all matters of correspondence. He shall keep regular and fair copies of all the answers returned, and shall lay them, together with all communications, before the Society at every succeeding meeting. He shall transmit to the Secretaries of the several District Societies, information on such subjects as may have been acted upon in this Society relative to their interest or well being. He shall, as soon as convenient, notify all persons who may be elected honorary members of this Society, and, at the same time, transmit to them a copy of the By-Laws; and shall perform such other duties as may be assigned to him. He shall keep a record of the election of all permanent delegates, and report to the State Society each year which District Societies are entitled to additional permanent delegates, and the number, and also all such delegates as shall have forfeited their membership.

Sec. 5. The Recording Secretary shall have charge of the laws and records of the Society; attend all meetings and record the proceedings in a suitable book, after they shall have been approved by the Society; give timely notice in such manner as shall be directed of all the regular as well as special meetings which the President may deem expedient to call; he shall receive and lay before the Society all nominations and

applications not connected with the duties of the Corresponding Secretary; and shall transcribe in the book of minutes the names of all persons who shall receive diplomas. He shall notify the chairman of every committee of his appointment, with the names of his associates and the subject referred to them, and furnish necessary papers; furnish credentials to delegates to other medical societies; demand and receive from the district medical societies a copy of all the proceedings had at their first meeting, and file the same among the archives of this Society, and perform such other duties as may be assigned to him. He may call upon any member of the Society to assist him during its session.

Sec. 6 The Treasurer shall take charge and keep a correct amount of all moneys belonging to the Society, together with the receipts and disbursements, and exhibit a statement of funds, at the annual meeting every year, and deliver to his successor all books and papers, with the balance of cash or other property of the Society in his hands. He shall demand and receive all money due to the Society; shall preserve for the benefit of the Society all donations and other movable property transmitted to his charge, and keep an exact list of the same, together with the names of the respective donors. He shall not pay any money out of the treasury, nor make any investment of the funds of the Society, nor change the same but by order of the Society. He shall give a bond at each annual meeting, said bond to be subject to the approval of the Standing Committee. None of the moneys of the Society shall be voted for any purpose whatsoever except for the work of the Society, viz: Expenses connected with the annual meeting; for publication of the transactions or other publications ordered by the Society, and the expenses of its officers and committees

Sec. 7. The Standing Committee shall consist of six members, two of whom shall be elected annually to serve for the term of three years. This committee shall present a report at each annual meeting, giving a summary of the medical history of the State,

together with other items of interest contained in the reports of the District Society Reporters. And that this may be done it shall be the duty of each of the several District Societies to appoint annually one of its members as a reporter, who shall be required to furnish to the Standing Committee, at least ten days before the annual meeting, a report giving information concerning the important transactions of the District Society; a brief abstract of interesting cases reported and papers read before the Society; of the death of any of its members, with obituary notice of the deceased, and also an account of the prevalence of disease in the county. The members of the committee shall have the privilege of attending the regular meetings of any District Society. The annual report of the committee shall also present a brief summary of the progress made by the medical profession at large during the year in the following departments: Medicine and therapeutics, surgery, bacteriology, State medicine and hygiene, nose and throat diseases, eye and ear diseases.

Each member of the Standing Committee shall prepare a paper on the progress made in one of these departments, or cause such paper to be prepared by a member of the Society qualified so to do by knowledge and experience. The committee shall report all irregularities, neglect and contempt of the laws, rules and regulations of the Medical Society of New Jersey; shall examine the By-Laws and proceedings had at the first meeting of the several District Societies, to see that they are not contrary "to any law or regulation of this Society, or the act of incorporation." It shall be a Committee on Medical Ethics and Judicial Business, to whom the Society shall refer all appeals from the District Medical Societies requiring adjudication, and their report, after examination in any case, shall be considered final, unless at its regular meeting two-thirds of the members present resolve to take up the case for general discussion, and for the action of the Society as a whole. It shall be their duty to prepare for publication in the annual transactions, or in such manner as shall be

directed, all cases, facts, circumstances and observations on medical and philosophical subjects, either of a general or local nature, as may be considered by the Society useful for the promotion of its own advancement and the well-being of the citizens of the State. They shall also report deaths of members of the Society. The committee shall elect their chairman, assign one of the above named papers to each member, and notify the Recording Secretary of their selection of chairman of the committee as soon as practicable.

Sec. 8. Every officer of this Society may, for sufficient reasons, resign his office, or may be removed by order of the Society for neglect, inattention, or mal-conduct; in either of which cases the Society shall fill the vacancy so made, and also all vacancies then existing because of adinterim appointments, as provided for in Sec. 2 of this Chapter.

Sec. 9. All the officers of this Society may be elected from among the members, in good standing, of the District Medical Societies, except the President, who must be chosen from the members of the Medical Society of New Jersey.

Sec. 10. The expenses of the Corresponding and Recording Secretaries, Treasurer and Chairman of the Standing Committee shall be paid.

Sec. 11. The Recording Secretary, Treasurer and a member designated by the President, shall be a Committee on Credentials. It shall be the duty of this committee to examine the certificates of all delegates, and if found to be in accordance with the provisions of Secs. 4 and 8, Chapter I, shall report their names to the Society.

Sec. 12. The Committee on Nominations shall consist of one delegate from each District Society represented, who shall be chosen by his own delegation. The committee shall present to the Society a list of candidates for the several offices provided for by Sec. 1 of this Chapter; also names of delegates to the American Medical Association and to corresponding societies; also the Committee of Arrangements for the next annual meeting, the Business Committee, the Committee on

Honorary Membership and one member of the Prize Committee; also the time and place of the next annual meeting.

Sec. 13. A Business Committee of five members shall be elected annually, who shall select the subjects to be presented at each annual meeting and the person and committee to present them. To this committee shall be referred all voluntary essays, papers and clinical cases for presentation to the Society; and they shall select such as they may deem worthy to be presented to and discussed by the Society, but not more that fifteen minutes shall be devoted to the presentation of any such essay, paper or case.

Sec. 14. The Committee on Honorary Membership shall consist of three Fellows, to be appointed by the Society to serve three years, or until their successors are appointed.

Practioners of medicine of this or any other State may be admitted as honorary members by a two-thirds vote, by ballot, of the Society, provided that the nominations be made to and approved by the Committee on Honorary Membership and presented to the Society at a previous meeting; and provided further, that the number of living honorary members shall not exceed fifteen.

Sec. 15. A committee of three shall be annually constituted to be called "Fellows Prize Committee." The retiring President of the Society shall be its chairman, a Fellow selected by his associates shall be the second member, and the third shall be a member of a District Society (not a Fellow), selected annually by this Society's Committee on Nominations at each annual meeting. The essays shall be placed in the hands of the chairman of this committee not less than two weeks before the annual meeting. The essays may be on any subject connected with the practice of medicine, and shall be signed with an assumed name and have a motto, both of which shall be endorsed on a sealed envelope to accompany the essay, containing the author's name, residence and District Society; and none of these envelopes shall be opened by the committee until after its award, and then only those bearing the mottoes and

names appended to the successful essays. The committee shall select the first two essays in order of merit, reference being had not only to the subject matter, but to the language and style of the author. To the first shall be awarded the prize of money; to the second, that of honorable mention.

The committee shall notify the successful authors to be present at the next annual meeting of the Society. and give to the President the names of these authors, with their assumed names and mottoes. The President shall announce to the Society at the annual meeting, the authors, with their mottoes and *nom de plume*, and before the whole Society, with some suitable ceremony, shall make the awards. The unsuccessful authors shall receive back their essays, upon their identification to the chairman of the committee. The successful essay shall be the property of the Society, and be published in its transactions. No awards shall be made unless the merits of the essay shall be of a decided character; and in this case the money shall remain in the treasury until applied for a subsequent award.

Sec. 16. A Committee of Arrangements of five members shall be appointed annually, a majority of whom, at least, shall be taken, if possible, from the members of the District Society of the district in which the annual meeting of the State Society is appointed to be held. The committee shall make the necessary arrangements for the meeting, and report their proceedings in writing to the Society.

CHAPTER III.

ELECTIONS.

Sec. 1. All elections for officers shall be at the annual meeting of the Society, and by ballot; and a majority of votes shall be required to determine a choice.

Sec. 2. Before the Society proceeds to ballot, the Committee on Nominations shall present a list of candidates for the several offices, provided for in the second chapter of these By-

laws, and an opportunity having been given to the members to make other nominations, the Society shall then be called to ballot; if no election is obtained on the first canvass, the two highest shall be considered the candidates for the succeeding balloting, and when a choice shall have been made, the persons chosen shall hold their office during the term of one year, excepting members of Standing Committee (see Chap. II, Sec. 7), and until others shall be elected.

CHAPTER IV.

DISTRICT SOCIETIES.

Sec. 1. The Medical Society of New Jersey, whenever applied to for that purpose, may establish District Medical Societies, if expedient, in any of the counties of this State; five licensed physicians or surgeons, practitioners and residents of the county, are necessary to organize any District Society.

Sec. 2. Nothing in these By-laws shall be construed to prevent any recognized physician, resident in a county having no District Society connected with this, from being a member of such society in an adjacent county. Whenever three-fourths of the members present concur in an application, they shall forthwith cause a commission to be issued, in the following form:

STATE OF NEW JERSEY.

By the MEDICAL SOCIETY OF NEW JERSEY, *to A., B., C. D., E. F., G. H, and M. D., Physicians and Surgeons, Greeting:*

Your application, requesting that a DISTRICT MEDICAL SOCIETY might be instituted, consisting of A. B., C. D., E. F., G. H., and M. D., in the County of———, was duly considered at a meeting of the MEDICAL SOCIETY OF NEW JERSEY, *held at———the——day of ——, Anno Domini 18—, and it was thereupon voted that your request be granted; provided that this grant is not to be extended beyond the period of one year.*

In testimony whereof, the President, pursuant to the aforesaid

vote of the Society, has hereonto subscribed his name, and affixed the seal of the Corporation at——— this———day of——— Anno Domini 18—

———, PRESIDENT.

[L. S.] *Attested:* ———, RECORDING SEC'Y.

Sec. 3. The By-laws, Rules and Regulations of each District Society cannot, in any instance, be contrary to any law of this State, or of the Medical Society of New Jersey; and it is the duty of the District Medical Societies, at the annual meeting, immediately succeeding their first meeting, to present to the Standing Committee a copy of all the proceedings had at their first meeting.

Sec. 4. Each District Society shall select and appoint its annual members of delegation, and send a certificate thereof to the Recording Secretary, with a list of its members, at least ten days before the annual meeting, yearly and every year, and they shall be considered members of this Society for one year, and until others shall be appointed. The Secretary of each District Society shall also report to the Recording Secretary of this Society the names of all persons nominated (according to the provisions of Sec. 4, Chapter I,) for election as permanent delegates.

Sec. 5. Each District Society shall, when required, give evidence that it is regularly organized, holds meetings at stated periods, has at least five attending members, and has complied with the By-laws, Rules and Regulations of this Society.

Sec. 6. Each District Society shall compel the attendance of its delegation at every stated and special meeting of this Society; and if any district shall fail to be represented, without due reason assigned, an investigation and report of the causes of such failure shall be required from the District Medical Society thus unrepresented; and upon a failure of representation for three successive years, the said Society shall be suspended until restored by a vote of this Society.

CHAPTER V.

REGULATIONS CONCERNING THE DEGREE OF DOCTOR OF MEDICINE AND HONORARY MEMBERSHIP.

Sec. 1. Candidates for the Degree of *Medicinæ Doctor*, may apply to any District Society of this State, and shall be admitted to examination under the following rules and regulations:

1st. Each District Society shall appoint annually, or *pro re nata*, a committee of not less than five members, who shall conduct the examinations.

2d. All examinations shall be in the presence of the Society at a regular meeting; and no candidate shall be examined until he has given satisfactory evidence of having reached the age of twenty-one years, is of good moral character, that his preliminary education has been such as to qualify him for the study and practice of medicine, and has pursued his medical studies under the care of some regular practitioner for the term of three years, including two courses of lectures in some medical institution in affiliation with the American Medical Association.

3d. The examination shall extend to all the branches taught in the medical schools recognized as aforesaid, and the candidate shall then be balloted for by the Society. If he shall receive the approving votes of two-thirds of all the members present, the presiding officer shall give a certificate to that effect to the candidate.

4th. The certificate may be presented at the next or any subsequent regular meeting of this Society, not extending beyond the period of three years, with a written thesis upon some medical subject; and if, upon a ballot, they shall be approved by a majority of the members present, the candidate, upon the payment of fifteen dollars, shall be entitled to receive a diploma in the following form:

Form of Diploma for the degree of Doctor of Medicine.

SOCIETAS MEDICA REIPUBLICÆ NEO-CÆSARIENSIS.

Legibus constituta, omnibus has Literas lecturis.

SALUTEM :

Quoniam A. B. vir ornatus et moribus inculpatus, qui omnibus studiis ad Medicinæ et Chirurgiæ usum scientiamque spectanibus animum fidelitur intendit, et opinionibus hominum faventibus, nobis commendatus est ut ad gradum Doctoris Medicinæ Chirurgiæque proveheretur :

Notum sit quod placet nobis, auctoritate hacce societate, collata inquisitione ejus peritiæ dilligentissima coram viris selectis et eruditis, secundum leges hujusce societatis, imprimis habita, supradictum A. B. titulo graduque Medicinæ et Chirurgæ Doctoris adornare, eique omnia jura, privilegia et honores ad istum gradum pertinentia, dedere et concedere.

Reipublicæ Neo-Cæsariensis illum ad gradum honorarium Medicinæ Chirurgiæque Doctoris libentissime proveximus., eique onmia jura privilega et honores ad istum quoquomodo pertinentia, dedimus et concessimus.

In cujus rei majorem fidem et plenius testimonium, sigillo hujusce Societatis, Præsidisque et Scribæ chirographis hocce Diploma muniendum curavimus.

Datum , die——— anno Domini ——— et Societatis.

PRÆSES.

{ L. S. } } SOCII.

SCRIBA.

CHAPTER VI.

ORDERS.—FUNCTIONS OF PRESIDENT LIMITED.

1st. At the meetings of the Society, the President shall not leave the chair unless on some urgent occasion, nor speak to any question without first obtaining permission.

CONDUCT OF MEMBERS IN DEBATE.

2nd. Every member in speaking shall rise in his place and address the chair, and shall not be interrupted while speaking, unless he be declared out of order—an appeal being made to the President.

MEMBERS LIMITED IN DEBATE.

3d. If a member has spoken once in any debate, he shall not speak to the prevention of another who has not spoken and manifests a desire to speak; and no member shall speak more than twice on the same subject without permission from the chair.

LIMITS OF MEMBERS.

4th. A member shall not speak on any subject after the question is put, unless to move a consideration.

MOTIONS.

5th. A motion shall not be considered unless seconded, and shall, if required, be committed to writing before any discussion or question can be taken, and in case of any equality of votes, the presiding officer shall decide.

TABLE OF FEES.

6th. The table of fees and rates of charging, as fixed and established by this Society, shall be the criterion (whenever a standard is required) for regulating and determining pecuniary considerations, for professional services rendered by the members of this and the several District Societies throughout the State of New Jersey, in their respective locations. The table is subject to such alterations as each District Society may deem expedient for its own locality.

JURISDICTION OF SOCIETY.

7th. This Society shall have control over the conduct of its own members; and in reference to the members of District Societies, shall exercise only appellate jurisdiction.

DUTIES OF PRESIDENT.

8th. It shall be the duty of the President and of all other officers who, in the discharge of their official duties, deliver addresses or present reports upon subjects referred to them, either by the rules or by a vote of the Society, to furnish the Secretary at the same or the next succeeding meeting, with a copy thereof, to be by him preserved among the archives of the Society, or to be published in the transactions of the Society.

CUSHING'S MANUAL.

9th. Cushing's Manual of Parliamentary Law shall be followed in all cases not covered by these rules.

ALTERATION OF BY-LAWS.

10th. No alteration of these By-Laws shall be made except the subject proposed shall have been submitted in writing to the consideration of the Society at a previous stated meeting, and the concurrence of three-fourths of the members present shall be necessary to ratify and confirm any amendment.

CHAPTER VII.

ETHICS.

ART. I.—*Duties jor the support of professional character.*

Sec. 1. Every individual on entering the profession, as he becomes thereby entitled to all its privileges and immunities, incurs an obligation to exert his best abilities to maintain its dignity and honor, to exalt its standing, and to extend the bonds of its usefulness. He should, therefore, observe strictly such laws as are instituted for the government of its members; should avoid all contumelious and sarcastic remarks relative to the faculty, as a body; and while, by unwearied deligence, he resorts to every honorable means of enriching the science, he should entertain a due respect for his seniors, who have, by their labors, brought it to the elevated condition in which he finds it.

Sec. 2. There is no profession, from the members of which greater purity of character, and a higher standard of moral excellence are required, than the medical; and to attain such eminence, is a duty every physician owes alike to his profession and to his patients. It is due to the latter, as without it he cannot command their respect and confidence, and to both, because no scientific attainments can compensate for the want of correct moral principles. It is also incumbent upon the faculty to be temperate in all things; for the practice of physic requires the unremitting exercise of a clear and vigorous understanding; and, on emergencies, for which no professional man should be unprepared, a steady hand, an acute eye, an unclouded head, may be essential to the well-being and even to the life of a fellow creature.

Sec. 3. It is derogatory to the dignity of the profession to resort to public advertisements or private cards or hand-bills, inviting the attention of individuals affected with particular diseases—publicly offering advice and medicine to the poor gratis, or promising radical cures; or to publish cases and operations in the daily prints, or suffer such publications to be made; to invite laymen to be present at operations, to boast of cures and remedies, to adduce certificates of skill and success, or to perform any other similar acts. These are the ordinary practices of empirics, and are highly reprehensible in a regular physician.

Sec. 4. Equally derogatory to professional character is it, for a physician to hold a patent for any surgical instrument or medicine, or to dispense a secret *nostrum*, whether it be the composition or exclusive property of himself or of others. For if such nostrum be of any efficacy, any concealment regarding it is inconsistent with beneficence and professional liberality; and, if mystery alone gives it value and importance, such craft implies either disgraceful ignorance or fraudulent avarice. It is also reprehensible for physicians to give certificates attesting the efficacy of patent or secret medicines. or in any way to promote the use of them.

ART. II.—*Professional services of physicians to each other.*

Sec. 1. All practitioners of medicine, their wives and their children, while under the paternal care, are entitled to the gratuitous services of any one or more of the faculty residing near them, whose assistance may be desired. A physician afflicted with disease is usually an incompetent judge of his own case; and the natural anxiety and solicitude which he experiences at the sickness of a wife, a child or any one, who, by the ties of consanguinity, is rendered peculiarly dear to him, tend to obscure his judgment, and produce timidity and irresolution in his practice. Under such circumstances, medical men are peculiarly dependent upon each other, and kind offices and professional aid should always be cheerfully and gratuitously afforded. Visits ought not, however, to be obtruded officiously; as such unasked civility may give rise to embarrassment, or interfere with that choice on which confidence depends. But, if a distant member of the faculty, whose circumstances are affluent, request attendance, and an honorarium be offered, it should not be declined; for no pecuniary obligation ought to be imposed which the party receiving it would wish not to incur.

ART. III.—*Of the duties of physicians as respects vicarious offices.*

Sec. 1. The affairs of life, the pursuit of health, and the various accidents and contingencies to which a medical man is peculiarly exposed, sometimes require him temporarily to withdraw from his duties to his patients, and to request some of his professional brethren to officiate for him. Compliance with this request is an act of courtesy, which should always be performed with the utmost consideration for the interest and character of the family physician, and when exercised for a short period, all the pecuniary obligation for such service should be awarded to him. But if a member of the profession neglect his business in quest of pleasure and amusement, he cannot be con-

sidered as entitled to the advantages of the frequent and long-continued exercise of this fraternal courtesy, without awarding to the physician who officiates the fees arising from the discharge of his professional duties. In obstetrical and important surgical cases which give rise to unusual fatigue, anxiety and responsibility, it is just that the fees accruing therefrom should be awarded to the physician who officiates.

ART. IV.—*Of the duties of physicians as regards consultations.*

Sec. 1. A regular medical education furnishes the only presumtive evidence of professional abilities and acquirements, and ought to be the only acknowledged right of an individual to the exercise and honors of his profession. Nevertheless, as in consultations the good of the patient is the sole object in view, and this is often dependent on personal confidence, no intelligent regular practitioner, who has a license to practice from some medical board of known and acknowledged respectability, recognized by this Association, and who is in good moral and professional standing in the place in which he resides, should be fastidiously excluded from fellowship, or his aid refused in consultation, when it is requested by the patient. But no one can be considered a regular practitioner, or fit associate in consultation, whose practice is based on an exclusive dogma, to the rejection of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry.

Sec. 2. In consultations, no rivalship or jealousy should be indulged; candor, probity, and all due respect should be exercised towards the physician having charge of the case.

Sec. 3. In consultation, the attending physician should be the first to propose the necessary questions to the sick; after which the consulting physician should have the opportunity to make such further inquiries of the patient as may be necessary to satisfy him of the true character of the case. Both physicians should then retire to a private place for deliberation; and the one first in attendance should communicate the direc-

tions agreed upon to the patient or his friends, as well as any opinions which it may be thought proper to express. But no statement or discussion of it should take place before the patient or his friends, except in the presence of all the faculty attending, and with their common consent; and no *opinions* or *prognostications* should be delivered, which are not the result of previous deliberations and concurrence.

Sec. 4. In consultations, the physician in attendance should deliver his opinion first; and when there are several consulting, they should deliver their opinions in the order in which they have been called in. No decision, however, should restrain the attending physician from making such variations in the mode of treatment, as any subsequent unexpected change in the character of the case may demand. But such variation, and the reasons for it, ought to be carefully detailed at the next meeting in consultation. The same privilege belongs also to the consulting physician if he is sent for in an emergency, when the regular attendant is out of way, and similar explanations must be made by him at the next consultation.

Sec. 5. The utmost punctuality should be observed in the visits of physicians when they are to hold consultation together, and this is generally practicable, for society has been considerate enough to allow the plea of professional engagement to take precedence of all others, and to be an ample reason for the relinquishment of any present occupation. But as professional engagements may sometimes interfere and delay one of the parties, the physician who first arrives should wait for his associate a reasonable period, after which the consultation should be considered as postponed to a new appointment. If it be the attending physician who is present, he will of course see the patient and prescribe; but, if it be the consulting one, he should retire, except in cases of emergency, or when he has been called from a considerable distance, in which latter case he may examine the patient, and give his opinion in *writing* and *under seal*, to be delivered to his associate.

Sec. 6. In consultations, theoretical discussions should be avoided, as occasioning perplexity and loss of time; for there may be much diversity of opinion concerning speculative points, with perfect agreement in those modes of practice which are founded, not on hypothesis, but on experience and observation.

Sec. 7. All discussions in consultation should be held as secret and confidential. Neither by words nor manner should any of the parties to a consultation assert or insinuate that any part of the treatment pursued did not receive his assent. The responsibility must be equally divided between the medical attendants—they must equally share the credit of success as well as the blame of failure.

Sec. 8. Should any irreconcilable diversity of opinion occur when several physicians are called upon to consult together, the opinion of the majority should be considered as decisive; but if the numbers be equal on both sides, then the decision should rest with the attending physician. It may, moreover, sometimes happen that two physicians cannot agree in their views of the nature of a case, and a treatment to be pursued. This is a circumstance much to be deplored, and should always be avoided, if possible, by mutual concessions, as far as they can be justified by a conscientious regard for the dictates of judgment. But, in the event of it occurrence, a third physician should, if practicable, be called to act as umpire; and, if circumstances prevent the adoption of this course, it must be left to the patient to select the physician in whom he is most willing to confide. But, as every physician relies upon the rectitude of his judgment, he should, when left in a minority, politely and consistently retire from any further deliberation in consultation, or participation in the management of the case.

Sec. 9. As circumstances sometimes occur to render a *special consultation* desirable, when the continued attendance of two physicians might be objectionable to the patient, the member of the faculty whose assistance is required in such

cases, should sedulously guard against all future unsolicited attendance. As such consultations require an extraordinary portion of time and attention, at least a double honorarium may be reasonably expected.

Sec. 10. A physician who is called upon to consult should observe the most honorable and scrupulous regard for the character and standing of the practitioner in attendance; the practice of the latter if necessary, should be justified as far as it can be, consistently with a conscientious regard for truth, and no hint or insinuation should be thrown out which could impair the confidence reposed in him, or affect his reputation. The consulting physician should also carefully refrain from any of those extraordinary attentions or assiduities which are too often practiced by the dishonest for the base purpose of gaining applause, or ingratiating themselves into the favor of families and individuals.

ART. V.—*Duties of physicians in cases of interference.*

Sec. 1 Medicine is a liberal profession, and those admitted into its ranks should found their expectations of practice upon the extent of their qualifications, and not on intrigue or artifices.

Sec. 2. A physician, in his intercourse with a patient under the care of another practitioner, should observe the strictest caution and reserve. No meddling inquiries should be made —no disingenuous hints given relative to the nature and treatment of his disorder; nor any course of conduct pursued that may directly or indirectly tend to diminish the trust reposed in the physician employed.

Sec. 3. The same circumspection and reserve should be observed when, from motives of business or friendship, a physician is prompted to visit an individual who is under the direction of another practitioner. Indeed, such visits should be avoided, except under peculiar circumstances; and when they are made, no particular inquiries should be instituted relative to the nature of the disease, or the remedies employed,

but the topics of conversation should be as foreign to the case as circumstances will admit.

Sec. 4. A physician ought not to take charge of, or prescribe for a patient who has recently been under the care of another member of the faculty in the same illness, except in cases of sudden emergency, or in consultation with the physician previously in attendance, or when the latter has relinquished the case, or been regularly notified that his services are no longer desired. Under such circumstances, no unjust and illiberal insinuations should be thrown out in relation to the conduct or practice previously pursued, which should be justified as far as candor and regard for truth and probity will permit; for it often happens that patients become dissatisfied when they do not experience immediate relief, and as many diseases are naturally protracted, the want of success, in the first stage of treatment, affords no evidence of a lack of professional knowledge and skill.

Sec. 5. When a physician is called to an urgent case, because the family attendant is not a hand, he ought, unless his assistance in consultation be desired, to resign the care of the patient to the latter immediately on his arrival.

Sec. 6. It often happens, in cases of sudden illness or of recent accidents and injuries, owing to the alarm and anxiety of friends, that a number of physicians are simultaneously sent for. Under these circumstances, courtesy should assign the patient to the first who arrives, who should select from those present any additional assistance that he may deem necessary. In all such cases, however, the practitioner who officiates should request the family physician, if there be one, to be called, and, unless his further attendance be requested, should resign the case to the latter on his arrival.

Sec. 7. When a physician is called to the patient of another practitioner, in consequence of the sickness or absence of the latter, he ought, on the return or recovery of the regular attendant, and with the consent of the patient, to surrender the case.

Sec. 8. A physician, when visiting a sick person in the country, may be desired to see a neighboring patient who is under the regular direction of another physician, in consequence of some sudden change or aggravation of symptoms. The conduct to be pursued on such an occasion is to give advice adapted to present circumstances; to interfere no further than is absolutely necessary with the general plan of treatment; to assume no future directions, unless it be expressly desired; and, in this last case, to request an immediate consultation with the practitioner previously.

Sec. 9. A wealthy physician should not give advice *gratis* to the affluent, because his doing so is an injury to his professional brethren. The office of a physician can never be supported as an exclusively beneficent one; and it is defrauding, in some degree, the common funds for its support, when fees are dispensed with which might justly be claimed.

Sec. 10. When a physician who has been engaged to attend a case of midwifery, is absent, and another is sent for, if delivery is accomplished during the attendance of the latter, he is entitled to the fee, but should resign the patient to the practitioner first engaged.

ART. VI.—*Of differences between physicians.*

Sec. 1.—Diversity of opinion and opposition of interests may, in the medical as in other professions, sometimes occasion controversy and even contention. Whenever such cases unfortunately occur, and cannot be immediately terminated, they should be referred to the arbitration of a sufficient number of physicians, or a *court-medical.*

Sec. 2. As peculiar reserve must be maintained by physicians towards the public in regard to professional matters, and as there exist numerous points in medical ethics and etiquette through which the feeling of medical men may be painfully assailed in their intercourse with each other, and which cannot be understood or appreciated by general society, neither the subject matter of such difference nor the adjudication of

the arbitrators should be made public, as publicity in a case of this nature may be personally injurious to the individuals concerned, and can hardly fail to bring discredit on the faculty.

ART. VII.—*Of pecuniary acknowledgments.*

Some general rules should be adopted by the faculty in every town or district, relative to *pecuniary acknowledgments* from their patients ; and it should be deemed a point of honor to adhere to these rules with as much uniformity as varying circumstances will admit.

ART. VIII.—This Society adopts the code of ethics established by the American Medical Association.

APPENDIX TO LAWS, ETC.

TABLE OF FEES,

AND RATES OF CHARGING FOR MEDICAL AND SURGICAL SERVICES, ESTABLISHED BY THE MEDICAL SOCIETY OF NEW JERSEY, AT THE ANNUAL MEETING IN JUNE, 1896, FOR THE FUTURE GOVERNMENT OF ITS MEMBERS.

OFFICE BUSINESS.

Advice	$1.00 to	5.00
" by letter	5.00 "	15.00
" at night, double.		
" in venereal diseases (payable in advance)	5.00 "	25.00
In cases requiring the applications of remedies and minor surgical operations, the charge to be doubled.		
Certificate in case of illness or for a life insurance policy	1.00 "	5.00

MISCELLANEOUS.

Chemical and microscopical examination of urine	$5.00 to	30.00
Chemical analysis in case of poison or suspected poison	50.00 "	300.00
Other chemical or microscopical examinations to be charged according to the trouble and expense involved.		

Post mortem	$10.00 to 30.00
" " if subject is exhumed	30.00 " 100.00
Each assistant is entitled to a fee.	
Opinion of an expert	30.00 " 200.00
Efforts for the restoration of the poisoned	5.00 " 50.00
" if stomach-pump is used	20.00 " 100.00
" for the restoration of the drowned	10.00 " 100.00
Administration of anæsthetics	5 00 " 15.00

GENERAL PRACTICE.

Ordinary visits	$2.00 to 5.00
(If the distance exceeds one mile, a half-dollar for each mile may be added).	
Advice given to other patients at the same visit to be charged as office business.	
Visits after 9 o'clock P. M. or before 7 A. M., or in haste, or in extraordinary circumstances, to be charged double.	
Remaining in attendance all night	10.00 " 20.00
Detention, in addition to visit, per hour	1.00 " 2.00
Visits in contagious diseases, to be charged according to the trouble and exposure involved	4.00 " 10.00
Consultation visit (mileage to be added)	5.00 " 50.00
Attending physician entitled to consultation fees.	

MIDWIFERY.

Ordinary case	$15.00 to 100.00
(With visits the first week.)	
Case requiring version or forceps	20.00 " 150.00
Craniotomy, symphyseotomy or cæsarean section	50.00 " 200.00
Induction of premature labor	30.00 " 100.00
Attendance in case of abortion	10.00 " 40.00

Visits after the first week, or extra visits during the first week, to be charged as in general practice.

In any case when detained in constant attendance longer than six hours, an additional charge per hour may be made as in general practice.

SURGERY.

Visits and consultation same as in general practice.

Wounds, each dressing	$2.00 to 10 00
Simple fractures, first dressing:	

Bones of hand	$5.00	to	10.00
" forearm, arm or shoulder	10.00	"	40.00
" foot	5.00	"	15.00
" leg	20.00	"	50.00
" thigh or hip	30.00	"	100.00
" spine, rib or sternum	10.00	"	50.00
Compound fractures to be charged one-half more.			
Dislocations, reduction of:			
Bones of thumb or fingers	$3.00	"	10 00
" wrist or elbow	5.00	"	25.00
" shoulder	10.00	"	30.00
" toes	3.00	"	10.00
" ankle	10.00	"	30.00
" knee	30.00	"	60.00
" hip	30.00	"	100.00
" clavicle	10.00	"	30.00
" lower jaw	5.00	"	25.00
Amputation or resection (of extremities)	10.00	"	200.00
Trephining	20.00	"	75.00
Evacuation of fluids from chest or abdomen	10.00	"	30.00
Removal of small tumors from surface of body by incision, ligature, electricity or cautery	5 00	"	30.00
Large tumors	50.00	"	200.00
Aneurism by ligature or compression	50.00	"	150 00
Cœliotomy or laparotomy for exploration, removal of tumors, repair of wounds, removal of calculus from urinary or gall bladder, etc	75.00	"	300.00
Lithotomy or lithrotity	100.00	"	300.00
Herniotomy	30.00	"	100.00
Operations for radical cure of hernia	50.00	"	200.00
Reduction of hernia by taxis	5.00	"	15.00
Operations on genito-urinary organs in females, as removal of womb and appendages, repair of fistula, and tumors of vulva and vagina, etc	50.00	"	200.00
In male, as castration, amputation of penis, radical cure for hydrocele, etc	30.00	"	100.00
Operations on rectum, as fistula, hemorrhoids, etc	30.00	"	100.00
Tracheotomy, œsophagotomy, or pharyngotomy	30.00	"	100.00
Extraction of foreign bodies from nasal or aural passages	5.00	"	15.00

Extraction of foreign bodies from trachea or œsophagus	$10.00	to	50.00
Operations for relief of deformities—as hair-lip, etc..	20.00	"	75.00
" " orthopedic....	20.00	"	75 00
" upon the eye and ear.....	10.00	"	500.00

The assistant surgeon is entitled to charge half fees.

It is earnestly recommended by the Society, that bills for professional services be rendered as often as once in three months.

Any number of visits made in a single day should be charged at not less than the usual rate, since cases requiring such frequent visits must involve more than ordinary responsibility; and many of the visits must be paid at inconvenient hours.

Professional services are entitled to compensation at the time the same are rendered.

In the cities and towns in the State contiguous to the cities of New York and Philadelphia, the rates of charging for medical and surgical services may reasonably correspond with the rates of those cities.

PRESIDENT'S ADDRESS.

By William Elmer, M. D., Trenton, N. J.

Fellow Members of the Medical Society of New Jersey:

Let me, as my first pleasing duty, tender to you my sincere and cordial thanks for the high privilege and esteemed honor which you have so generously conferred upon me in electing me as your presiding officer for this annual meeting of the State Society. In a Society which ranks with the best in the land, and has the prestige and pre-eminence of one hundred and thirty years inscribed upon its brow, to hold the highest honor which it is within your power to bestow, is enough to make one feel profoundly grateful, and to incite the sincere desire that he may preside over your deliberations with that dignity, that justice and that urbanity which such an exalted position demands. This then, shall be my earnest endeavor. And to aid me in so doing, I bespeak your helpful co-operation and your kindly forbearance.

Gathered as we are this evening, a band of earnest workers in the science and art of medical practice, whose whole aim is the benefit of our fellow-beings and the improvement of all that relates to their physical and moral condition, I have thought it appropriate to address you on the topic of the relation which we, as physicians, hold to the wide and important field of sanitary science—that broad subject which deals with the health of communities as well as individuals, and is concerned more in preventing than in curing the diseases which swell the annual mortality of the human race.

In our daily rounds of professional duty, at the bedside of our patient, our views of the scope and aim of the practitioner, are apt to get narrowed down to simply the cases before us, and we forget that there is a still higher sphere and a wider field of usefulness for us to wield a very important part and to exert a most wholesome influence as teachers of the people, guiding them to proper measures and legal enactments for the prevention of disease and the preservation of the public health. We can enlist the efforts of the people themselves in their own self-amelioration, can show them the causes of physical degeneration and disease, and how far, by right living, these can be controlled or averted. For, the education of the masses is the real groundwork of national health.

Sanitary improvements in men's material surroundings are conductive to their moral elevation; and public virtue and public health are both conductive to national prosperity. The fundamental principles of personal and domestic hygiene must become matters of intelligent conviction amongst all classes, and those in the higher walks of life should help those in the lower who are unable to help themselves, for disease, as it affects the workers of a population, is directly antagonistic to their industry—to their value as wage-earners—and must be in part regarded as tending to the deterioration of the race. It is the prerogative of the physician, as a sanitarian, to lend his influence and efforts to correct such evils, and we rejoice to know, and for the credit of our noble profession be it said, that the world over, the foremost and valiant leaders in the great battle against preventable diseases, at no matter what sacrifice of effort or skill, and even counting not their own lives dear in the contest, are physicians. Can you tell me of any other profession or occupation where self-interest, self-enrichment, self-glorification is so

universally and unhesitatingly sacrificed to the public weal as is that of the philanthropic physician? No; in peace or in war, in pestilence wide-spread, or in the silent chamber of the humble home, his aim is the preservation of others—the abnegation of self, the protection of the community—and often his own sustenance is the price paid for his heroic efforts. Can any human being be engaged in nobler work? He lives for something higher than wealth, fame or pleasure, desirable and proper as the legitimate attainment of these may be. In the present advanced science of medicine, the study of the primary sources of disease, a knowledge of how these causes operate, and an active interest, not only in counteracting their ill effects, but also in preventing their acting at all, when that is possible, are essentials to every well-educated physician.

The very education he has received, the special opportunities for observation and research he has enjoyed, his position as counsellor, and often as leader, in all matters pertaining to the restoration of health, as well as to the avoidance of causes of disease, make these obligations resting on him most binding and sacred. As a writer has well said: "A physician may, and should more than any other, teach people how to live, so as to get the most good out of their physical lives and to make those lives useful, happy and vigorous. Daily, and in a practical way, the physician can teach and should preach the gospel of cleanliness, upon all proper occasions, and he should not only practice what he preaches, but if he has the courage of his convictions he should endeavor to see that others do no wrong in this direction. He can show that cleanliness of person and surroundings is not only essentials to physical health, but is a very important factor in morals. He can show that neglect of sanitary

laws frequently leads to neglect of moral laws; that perverted physical health often lays the foundation for mental and moral perversion; that filthy habitations and surroundings are directly antagonistic to purity of life or noble aspirations; that human beings are very largely creatures of habit, and especially in childhood are imitative animals, and that people born, developed and educated in squalor and filth, are almost certain to furnish by far the largest proportion of recruits for the pauper and criminal classes of society. He can show, below the moral question, and yet of great importance, the vast loss to the individual, to the family, to the community, and to the State, in dollars and cents, caused by unnecessary sickness and death consequent upon unsanitary conditions."

He can instruct and educate the masses in the avoidance of preventable diseases, and prove that the neglect of proper precautions leads often to fearful results in illness and death, for, in the present state of bacteriological science, fatalities due to certain pestilential influences to be termed "mysterious dispensations of Providence," is an insult to an enlightened community. But in all these efforts, made by the intelligent physician for the sanitation of the people, the people on their part must co-operate with him and yield a willing acquiescence to his efforts in their behalf. Lord Derby, of England, when speaking on this subject, said: "No sanitary improvement worth the name will be effective, whatever acts you pass or whatever power you confer upon public officers, unless you create an intelligent interest in the matter among the people at large. The State may issue directions, municipal authorities may execute to the best of their power, inspectors may travel about, medical authorities may draw up reports, but you cannot make a popula-

tion cleanly or healthy against their will or without their intelligent co-operation." And just in proportion as sanitary obedience by the people follows judicious sanitary education, so does their physical and moral condition improve, and the rate of mortality diminish, and the whole social structure of the State rise to a higher, nobler, better standard.

The day is nigh—has really already come—when not only physicians, but those who administer and make our laws, recognize the fact that society feels the necessity, not only for the punishment of crime and the cure of disease, but also, and as a primary relation, the prevention of crime and disease, and will insist on all possible protection from the unseen, though preventable, causes of disease and death. The higher a nation rises in the scale of civilization, the greater is its regard for maintaining and developing the highest grade of sanitation. Barbaric nations know nothing of sanitary regulations. The plagues and pestilences of the dark mediæval days have been dispelled by the advance of science in the nineteenth century, and could not again recur, with their wide and devastating sweep of death destroying thousands and tens of thousands in their train. And this is due solely to the wonderful advances made in the practical knowledge of the laws and discoveries of sanitary science by medical men and its diffusion among the people at large. It is within the last half century that public hygiene has developed into a science. Before that it was crude and empirical. Its progress has not been rapid, nor has it been unattended with prejudice and opposition. Men were slow to discover that some of the restrictions which it imposed, and which they regarded as an infringement of their personal liberty, were really productive of most valuable results to the community in general. In certain

instances, where the rights of corporations or the conceded privileges of the laws of trade were involved, and necessarily curtailed, strenuous resistance was met with. Even State or Government aid was at first reluctantly given, because of dreaded unpopularity, and medical men themselves not being yet properly educated, or indifferent to its results, rather held aloof. But now this is changed. Public opinion endorses public hygiene—the loss to an individual is subservient to the gain of the masses. The medical profession regard it as a branch of their manifold departments. Every progressive physician is a sanitarian in its highest sense. Government has responded liberally and opened wide its doors for the diffusion of its knowledge and the advancement of its principles. Every civilized country now has some system of State medicine in vogue and protected by legislative enactments. The prospects for sanitary science were never brighter, nor fraught with happier and more wide-spread benefits, than they are to-day. The practical results of this improved and enlightened sentiment have shown themselves in many and varied ways. The era of progress has just begun, but a bright future is in store for it, and the coming years will yield blessed results for humanity and honorable rewards for those disciples who are its faithful adherents and energetic sustainers.

What, then, are some of the lines on which it behooves us, as medical men, to lend our influence and enlist our efforts in its behalf? What can we do to promote human development, improve the well-being of our fellow creatures, make life more vigorous and more enjoyable to the great mass of humanity? What are now the most essential points in the problems of public sanitation?

The fundamental principles of all sanitation go back to the trifold dicta of the father of medicine, Hippocrates

himself—"pure air, pure water and pure soil." Add to these, wholesome food and healthful surroundings, and we have at once a basis broad enough and flexible enough from which to elaborate all our modern methods of sanitary progress.

"The great source of the misery of mankind," says Dr. Wm. Farr, of England, "is not their number, but imperperfections and the want of control over the conditions in which they live." Hence, the problems of public health now require that, by the aid of municipal and State authority, the sewage waste and the "filth diseases," resulting therefrom, should be controlled and their causes prevented; that official investigation should be made of all epidemic and pestilential diseases by hygienic experts; that proper protection should be given to our schools, our work-shops, our public buildings, our private dwellings, our tenement houses—all general measures required for the common welfare of the people. The questions of systematic drainage, the water supply of towns and cities, the police and quarantine regulations of the thickly-settled portions of communities, should all have adequate legislation and control. And, perhaps, one of the most important measures which demands our attention is the care and protection of the children. If the child belongs to the State, then it is the sacred duty of the State to protect the life of the youngest and humblest infant as much as the oldest and most distinguished citizens. And yet the statistics of our large cities show that about one-half of all deaths occurring are of children under five years of age, and that a large per cent. of these deaths take place during the heated term and are attributed to cholera infantum. This waste of life in its early existence is unnatural. It should be inquired into and, as far as practicable, removed. Crowded, badly ventilated and

poorly drained apartments, vititated food and milk supply, diseased heredity and want of material care, are the principal factors in infant mortality in the slums of cities. And it is a source of gratification to know that in the last few years, by means of systematic street cleaning, house-to-house visitation by dispensary physicians and sanitary inspectors, the Heaven-born charity of fresh air funds, children's guilds, seaside homes and free parks, much has been done to relieve the suffering, diminish the mortality and promote the comfort of these poor unfortunate classes of every city's population.

But it is not the poorer classes alone that demand attention of the sanitary physician. The whole subject of the training and education of the young is vitally related to the domain of sanitary science. Beginning in the nursery, as we practitioners do, it is our duty to lay there the foundation of a typical healthy life. Bear in mind the pithy recipe of Dr. John Hunter, "Plenty of sleep, plenty of milk and plenty of flannel," as based on sound, common sense. And, as the child merges into the growing youth, his care naturally differs with his age. His reason must now be influenced, his intellect properly guided, his tastes developed by refining and ennobling influences; athletic sports should be encouraged and practiced, parental confidence and obedience inculcated; his books, pastimes and habits directed, so that physically and morally he may develop, pari-passu, until he reaches maturity, fitted for the duties of good citizenship. and an ornament to society, to good morals and to religion. The present youth of the country are her future people, and to them must be committed hereafter her destinies. On their training depends the greatness and power of her rank among the nations. Despise not then the early physical and mental training of youth. Never forget the

importance of the "sana mens" or the "corpus sanum," or the responsibility devolved upon every medical man in his relations to these important trusts. And in this connection, whilst on the subject of the sanitary care of our youths, it is appropriate here to allude to the matter of our schools and school buildings. We consider it fortunate that to-day the construction of a school or college edifice is scarcely planned without the advice of a sanitary engineer, or, at least, with the most modern improvements in hygenic measures as regards lighting, heating, ventilation and seating, and, further, that there is a growing popular tendency to place physicians on School Boards, and seek their advice on all these matters. Their help can be made a tower of strength in a community, and the good they do receive the gratitude of future generations. Many abuses and defects now existing might be remedied did we, as physicians, take a proper interest in them. The law compelling children to be vaccinated before admission should be rigidly enforced, and a school record of it should be kept. Teachers should be taught to observe the early symptoms of communicable diseases, and take suitable measures for protection by excluding a suspect. School authorities, in connection with local Boards of Health, can do much toward limiting the spread of contagious diseases, or, after exposure, returning to school only on the certificate of a physician that all danger to others from the incubatory period has passed. For small-pox, scarlet fever, measles and diphtheria, the Paris Academy of Medicine says isolation should not be shorter than forty days, and the same is agreed to by several of our State Boards of Health; or Vacher's Table can be referred to for special cases. In New York City, we believe, the rule is to isolate from diphtheria until examination by a microscopist shows the absence of bacilli. Un-

doubtedly the suggestion is a good one, to give simple instruction in plain words in our public schools, teaching our young boys and girls the rudiments of isolation and infection and contagion, as well as more thorough and complete knowledge of physiology and the laws of healthy living. "Educate the people" is the watchword of sanitary science, and the school-room is the place for its beginning. We venture to affirm that the next generation will make great advances over this in all these desiderata. The individual, the family and the State demand healthy bodies as well as trained minds, and the object of the school system is to secure good citizens in all that pertains to physical, mental and moral conditions.

Perhaps, in an address like this, we can, in our limited time, do no more than allude to the applications of sanitary science in the sick-room. Important as fresh air is to all healthy persons, to the sick it is tenfold more so; hence, the ventilation of the sick chamber is of paramount importance, and yet how often is it wholly neglected. There should be plenty of air, without draft. Atmospheric purity should, if necessary, be aided by disinfectants, absolute cleanliness of person, clothing and furniture; food, well prepared, wholesome and nutritious in quality, and daintily served, baths and sunlight, cheerfulness of demeanor and quietness of manner, are topics of great importance in their sanitary relations to both physician and patient, and yet need only to be mentioned here as too trite for elaboration.

So, too, there are numerous topics which concern us as physicians and demand our attention in the line of sanitary science, which we can but briefly refer to—one is the filtration of all water supplies for large cities. This, in time, will doubtless be recognized as of more importance than the purity of the source of the supply itself. The

process by sedimentation and sand filtration, as is now being planned for Cincinnati, seems to offer the mode best adapted for the purpose, the filter beds being constructed independent of each other and a daily bacteriological examination of each bed being made by a competent expert.

That the result will vastly diminish the prevalence of typhoid fever and acute intestinal diseases is unquestioned, as is shown by the statistics of certain European cities, where similar plans are in vogue, *e. g.*, Munich has now, by the last statistics, reduced its death rate to 2.7% per 100,000, the Hague 3.4% per 100,000, Berlin 4%, Dresden 6.9%; whereas, the average of cases in our American cities is about 56% per 100,000. This demonstrates clearly the fact that such precautionary measures mean a great saving of lives through preventable diseases, and a vast direct gain to the economics of such a population. According to Rochard, the economic value of an individual is what he has cost his family, the community or the State for his living, development and education, until he reaches the age when he can restore it by his own labor. This valuation has been variously estimated by different investigators. Chadwick, of England, considers a laborer equal to a permanent deposit of about $980; Farr gives about $780 as the average value of each human life; E. F. Smith places the loss to a community by a death from typhoid fever at $2,000, and with this as a basis, Prof. Mason, of the Rensselær Polytechnic Institute of Troy, N. Y., in a recently issued book, estimates the yearly loss to a city of 1,000 inhabitants, where there are 75 deaths from typhoid fever, estimating ten cases to one death, the loss of wages, the expenses of nursing, physician's bill, cost of burial of the dead, the wages lost by convalescents, etc., as nearly

$200,000. Surely, from such a calculation as this, the value of pure city water is inestimable.

Sanitary science has achieved a great victory in civilized lands over that Asiatic scourge—the cholera. In the epidemic of 1849, in London, 14,497 persons died from this disease. In Spain, in 1885, the victims numbered nearly 250,000, and yet, according to the recent report of the British Government, it appears that in 1893 this pestilence attacked 64 different places, with only 287 persons seized and only 135 deaths. In two-thirds of the places the authorities succeeded in stamping it out. Our metropolis of New York gave, three years ago, a similar illustration of the value of municipal, State and National sanitary quarantine. Is not this a triumph for medical art? From a recent report as to the economic value of municipal sanitation in the city of New York, we also learn that when the Health Department was organized, in 1866, the death rate was 35.04% per 1,000. In 1894, 28 years later, the rate was reduced to 21.05% per 1,000 inhabitants. This decrease represents a saving of over 3,500 lives annually, and over 80,000 lives during the quarter of a century, or an estimated valuation of a saving of nearly $62,000,000 of social capital. Add to this the reduced number of sick cases, usually reckoned in general diseases at 28 to each death, the pecuniary benefit resulting to the laboring classes by the exemption of the expenses of sickness and death, and we have some approximation of the large amount of suffering prevented by sanitation. "It has been proved over and over again," says Dr. Parkes, "that nothing is so costly in all ways as disease, and that nothing is so remunerative as the outlay that augments health, and in doing so augments the amount and value of the work done."

"Ideal social conditions are reached slowly, or by patient

efforts, but we are steadily nearing a higher moral, and the city of the future, in its improved condition, its wholesome life, its ampler opportunities for enjoyment and culture, will be the certain evolution of economic and regenerating forces now at work."*

Another matter which should more deeply engage the attention of physicians, in behalf of the health of the masses, is the communicability and prevention of consumption —the most prevalent of all human diseases and attended with the greatest mortality. According to our last report of the State Board of Health, it has caused the death of more than 30,000 persons in New Jersey alone in the past ten years, or one-seventh of the total number of deaths. We do not believe that it can ever be entirely stamped out, but since we now know that it is conveyed by a microscopic parasite—the bacillus tuberculosis—we are assured that much can be done to prevent its propagation and its ravages. The dust arising from dried sputum is its recognized factor, and where this, by inhalation, finds lodgment in a susceptible pulmonary state, the resulting infection may be very quickly accomplished. Consumption is a disease of civilized life, and most prevalent in crowded localities. It is practically unknown among barbaric and aboriginal people. Hence, rely more on hygenic remedial measures than the administration of drugs; the latter may be helpful, but they are in no sense specific. No drug has yet been found to be an antidote to the tuberculous cachexia. "Prevention is better than cure." Therefore, the precautions against expectoration in cars and public vehicles, the disinfection of railroad cars, attention to our homes and workshops against noxious and germ-bearing influences, and all other means of

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Rev. Dr. Dana, in New York *Herald.*

avoiding depressing causes should be earnestly advocated by all medical men.

There are numerous other topics which I should like to dilate upon as regards the duties of medical men as sanitarians, did our limited time permit. The questions of quarantine regulations for infected immigrants and their transportation to inland residences, the disposal of corpses from contagious diseases, and the attendance at the funerals of such, the important matter of vital statistics of a State, the subject of the various antitoxins and their purity of manufacture, the milk supply and Health Board inspection of dairy farms, hospital construction and management, inspection of plumbing, sewage and drainage, disinfection, vaccination and numerous others, readily suggestive to every one here, naturally claim our attention, but can only be mentioned and referred to each one present for his own reflection and, possibly, inspired activity in future.

And just here let me mention, as cognate to these topics of public sanitation, that we have in New Jersey a State Board of Health, well organized and equipped, of which any State in this Union may well be proud, an association to the establishment and success of which our esteemed and honored fellow-member, the late Dr. Ezra M. Hunt, devoted his tireless energies during the best years of his life, and placed it in the front rank of all such institutions in our broad land, the peer of any, second to none. Every member of this State Society should consider it his bounden duty to become also a member of that organization, if he would keep abreast of State medicine and fulfill his duty to himself and to those whom, by the nature and office of his profession, he is in honor bound to protect. The coming medical man must be well versed in all these matters relating to the com-

munity as well as to the individual, and must occupy an advanced and enlarged position from even the physicians of to-day. And where can he better lay the foundation or rear the superstructure of his knowledge than by his relationship to such learned and progressive bodies as teach him the value of preventive as well as curative medicine. To quote Dr. B. W. Richardson: "He is the most perfect sanitarian, and he is the most accomplished and useful physician, who knows most, both of the prevention of disease and of the nature and treatment of disease." Dr. Samuel D. Gross, one of America's greatest surgeons, said once in a public address: "The great question of the day is not this operation or that, not ovariotomy or lithotomy, or a hip-joint operation, which has reflected so much glory upon American medicine, but preventive medicine, the hygiene of our persons, our dwellings, our streets—in a word, our surroundings, whatever and wherever they may be, whether in city, town, hamlet or country. This is the great problem of the day, the question which you, as representatives of the rising generation of physicians, should urge in season and out of season upon your fellow-citizens, the question which, above all others, should engage your most serious thoughts and elicit your most earnest co-operation."

It is unquestionably true that the future of medicine is to be largely in the field of sanitation. It is remarkable what progress it has made in the last score of years and how the people themselves are beginning to appreciate it. Our medical colleges, too, recognize it, and are making provision for its requirements. They are making improvements in their curricula in all their departments. They are elevating their standards of admission and graduation, they are prolonging their course of study, "lengthening their cords and strengthening their stakes," adding new and

specific departments in both the didactic and experimental methods of investigation and research, until now chairs of biology, hygiene, bacteriology, histology, microscopic and chemical analysis, etc., are being established in all the foremost colleges of our land, and will ere long be adopted by all who desire to make their diplomas worthy of the name—or their graduates, men whom the world delights to honor.

Medical men in the future must be college-bred men, and our American medical schools will rival those of any nation on earth. The day will come when the degree of "Doctor Medicinæ" will be a title *honored* because zealously earned; *distinguished*, because measured by those whose sole interest is the protection of humanity. The status of physicians has, within the past few years, undergone a change, and is constantly rising to a higher plane. In early historical times the priests were accounted of highest rank in the civil profession; then came a period when the devotees of statecraft received highest honor and exercised most potent influence in the affairs of men. Physicians held subordinate rank and positions both in war and peace. But, in the last few decades, the relations of these professions among themselves, and in their standing before the public, has been undergoing significant change, until, from being the lowest, physicians are now rising above other liberal professions, and would steadily move forward until they will be accorded the first place among the honored people of the world, and this, for the reason that they have devoted themselves by rigid scientific investigations to make patent the causes of disease, and to determine exact measures for removing these causes, and for neutralizing their effects. The names of Jenner, Koch, Pasteur, Lister, Behring, Roux, Loeffler, Roentgen

and other pioneers are a brilliant galaxy in this branch of wonderful discoveries, and their illustrious brows are adorned with immortal honors by an appreciative populace. They are bright examples of what benefactors to our race physicians, as sanitary scientists, may become, whose genius lifts them to the high plane of biologic investigation, and thereby suppressing the causes of preventable diseases, shortening the duration and lessening the ravages of others not preventable, alleviating the suffering and prolonging the life of their fellow-beings.

Gentlemen of the medical profession, and especially you who are but recently engaging in the practice of this noble cause, what a privilege to live in this age of progress. What a land of promise lies before us. What a vista does the opening horizon of the near future afford us of the possibilities that lie within our grasp. What wonderful results seem about to be attained in all branches of medicine? Who can predict what developments will be reached in the next score of years? Think of what astounding discoveries in medical science our own eyes have seen within the past decade, and what a basis of enlightened rational treatment they offer for the next, although some of their experiments are still in their infancy. How pregnant with stupendous results has been the recent demonstration of the relation of micro-organizms to the cause of certain diseases. Koch's and Pasteur's investigations in bacteriology have been inestimable. Our ideas of sterilization have been based on this, with the result that by the aid of antisepsis and asepsis, operations in the domain of surgery can be safely performed which hitherto no surgeon would had dared to propose. Surgery and obstetrics have been revolutionized, and an operator can invade any part of the human frame as long as he keeps within the bounds of these

now well-recognized principles. The nature of contagious and epidemic diseases is now well demonstrated. "Spontaneous generation" is shown to be a fallacy, and a "disease in the air," a myth. Pathogenic microbes are destroyed by individual prophylaxis, and the further spread of disease aborted. Toxins, antitoxins, toxalbunins, sero-theraphy, skiagraph are new words in medical nomenclature, but how fraught with unspeakable results. Is there not in the name "antitoxin" joy for the hopeless, life for the dying? Serum theraphy, first proclaimed by Roux, in 1894, successful as it has been in diphtheria, offers equally brilliant prospects in pneumonia, tuberculosis, typhoid, tetanus, meningitis, cholera and other diseases of the zymotic class, and its future possibilities can scarcely yet be estimated. What shall we say of the Roentgen or X-rays, in medicine and surgery? When it is possible, by their aid, not only to examine the bony structure of our frame and locate deformities or injuries exactly as they exist, but when the announcement comes from Berlin that we can also see the interior of the skull and note the movement of the heart and lungs, and this corroborated by Prof. Norton, of Massachusetts Institute of Technology, who says: "The heart could be seen in faint outline, being slightly more opaque than the lungs, which are very transparent. The liver is very opaque, and its rise and fall, as the patient under examination breathed, was very easily seen. I was able to make a diagnosis of cases of tuberculosis, pneumonia, enlarged heart and enlarged spleen without difficulty."

The Roentgen rays are the search-lights of medical science, and we scarcely, as yet, realize to what extent their wonders of illumination may extend, nor how the ancient Greek inscription of "Gnothi seauton" (know

thyself) is being fulfilled in its physical sense in the nineteenth century. Add to these the numerous recently devised instruments of precision for analysis and diagnosis, and each of us can appreciate that we have an "open sesame" to many occult realms of disease never before even dreamed of, and a power to overcome them and to avert them has been given us, which makes us exclaim, what a blessing to learn and to practice our beneficent calling in this day and generation. It is a day of rich harvest—a day of great results. Much has been placed within our power; let us use it for the glory of the Great Giver, and for making His way known in the earth and His saving health among all nations. It is grand and noble to relieve pain—to cure disease. It is still grander and nobler to prevent sickness and prolong human life. Science and art can aim at nothing higher than the betterment of human conditions. Life will continue to be explored until its choicest scents are yielded, and the results applied to the securing of greater health and happiness to mankind.

I cannot better close than by repeating the words of one of our beloved members, whose voice was often heard in our midst, Dr. E. M. Hunt, in one of his addresses—"This is that philanthrophy which takes hold of the affections, as well as of the intellect and skill, and appeals to those sincere heart-sentiments which we mean when we speak of whole souled earnestness for the welfare of our fellow-men, and heartiness such as takes our yoke-fellow by the hand, lifts the burden of avoidable sickness off the shoulders of whole communities and enjoys doing it, not so much because it is scientific and practical, but because it limits human woe and sorrow; because it is Divine; because our method of working is by the Creator's law of nature, and our motives a part of the Christ-love for our race."

Let us then, fellow-members of our high profession, earnestly renew our resolve to appropriate our lives to pure work, to great obedience and to that noble devotion which consecrates itself to loving service for God and humanity.

ESSAY.

BY C. R. P. FISHER, M. D., THIRD VICE-PRESIDENT.

ANTISEPSIS AND ANTISEPTICS, FROM THE STANDPOINT OF THE GENERAL PRACTITIONER.

The subject of antisepsis has been discussed until it would seem to have been worn threadbare, and perhaps it has been, but it has seemed to me that during the discussions of the surgeons the voice of the general practitioner has not been heard to any great extent; and while his experience with their use in laparotomies and some other grave operations is necessarily not great, yet he might be pardoned for having formed opinions of his own concerning them, based upon his experience in the use or nonuse of them in handling such surgical cases as fall to his lot.

The average general practitioner is apt to be more of a worker than a writer, more of a listener than a talker, but he is also apt to be a thinker and to work out his problems for himself. Of course, from the very nature of his practice, his surgical work is mostly limited to minor surgery and accident cases, yet the latter are the very ones in which sepsis in its worst form is exceedingly liable to develop, and the country practitioner, who cannot turn his accident cases over to the ambulance surgeon or send around the corner for the skilled specialist, is forced to see his patient through unaided—without the skilled

assistants, the aseptic operating-room and the trained nurses of the hospital surgeon. He does not count his cases of this or that operation by the score or the hundred, but in the surgery he does do, he is obliged to think for himself, to rely on himself, to accept the whole responsibility; and the experience thus gained in a single case is worth more to him than the witnessing of dozens of brilliant operations performed by some shining light in the surgical world.

When a man is compelled (as the writer has been) to amputate a forearm at the upper third, in an isolated farm-house at 9 o'clock at night, his only assistants two farmers and an anæsthetizer of more than doubtful skill, the details of that operation are apt to impress themselves upon his memory; and if the after-treatment of such a case is carried, in the most (surgically) unclean surroundings without skilled nursing, to a successful issue, that man is very apt to have a great deal of respect for the antiseptic treatment and dressings which make such a result possible.

The man who is called on to dress the mangled arm of a freight brakeman, lying in his oil-soaked and cinder-begrimed clothing in a car inspector's shanty, is not likely to feel that he has done his whole duty by his patient unless, in addition to cleansing the wounded limb with soap and water, he has flushed the wound and scrubbed the surrounding parts with some germicidal solution before proceeding to apply his dressings.

If the thermometer gives warning of an infection during the treatment of an obstetric case, (and the doctor in private practice is expected to obtain as good results in the filthy attic of a tenement house as are shown by the statistics of the most modern of maternity hospitals), the physician who meets the condition by irrigating with

antiseptic solutions of proper strength, will have better cause to be satisfied with himself and his treatment than the man who uses "plain hot water."

I do not believe and never have believed that it is necessary to douche the vagina of every lying-in woman with antiseptic solutions before labor. I cannot think that the normal genital canal is such a hotbed of infectious micro organisms as to make it necessary to wash away all the secretions which nature has so wisely and abundantly provided for the lubrication of the parts at this time; but I do believe that it is our duty, by a careful cleansing (disinfection) of the external genitals and the hands of the attendant before each examination, to see to it that no infectious material is carried into the canal to produce mischief at some future time; and I also believe that if these precautions are carried out carefully there will be little necessity for further intervention after labor. The poison which produces puerperal septicæmia is introduced from without, and it is the duty of the attendant to see that such contamination is not due to any carelessness on his part. In the days when antiseptics were unknown, the physician who acted as accoucheur while in daily attendance upon a case of erpsipelas or scarlet fever, for instance, did so with the full knowledge of the frightful consequences which might arise from such action; but to-day he would be troubled by no such fears, feeling justly confident that a change of clothing and the proper use of disinfectants would prevent serious consequences. Indeed, I have personal knowledge of a case where a physician, while still in the desquamative stage of scarlet fever himself, attended a lady in the third stage of labor, it being an emergency case, with no other help procurable, and as he took the precaution to put on a perfectly clean suit of clothing and to soak and scrub

his hands and arms thoroughly with a strong solution of bichloride, no ill effects followed.

It has happened more than once that a practitioner has been obliged to give up obstetric practice altogether for a time, because every woman he attended was morally certain to suffer from puerperal fever. Those were the days when we used to hear of "epidemics" of this dreaded malady, and while the cause was pretty well known to be a specific one, we were ignorant of its nature and equally ignorant of the means of prevention and treatment which are so successfully used to-day.

Of course, the technique of antiseptic surgery has been very much simplified since the days when it was considered necessary to keep the operating room filled with carbolized spray, but I do not believe that, because some of the more elaborate methods have been found to be unnecessary, we are justified in throwing our germicidal solutions entirely to one side; it is very often utterly impossible for the physician in general practice to be as thorough in the work of making and keeping the field of his operations aseptic as he would like, but the more freely he uses antiseptics, the nearer will he come to the attainment of his wishes; in private practice it is often entirely impossible, of course, to carry out every detail of the directions given by the authorities for making the operator, his assistants, the field of operation and the operating room aseptic, and while such extreme care may be indispensable in the graver operations, it does not seem so absolutely necessary in smaller ones—at least we get good results in cases where the surroundings utterly preclude thoroughness in our antiseptic precautions, and it is here that germicidal solutions are of advantage. It may be possible, in the perfectly aseptic atmosphere of a well-appointed hospital operating-room,

to get good results by the use of simple, clean water, but the whole surroundings are practically sterile to begin with, and great care is taken to have instruments, dressings and everything else that comes near the wound as nearly surgically clean as it is possible to have them.

But operating under such conditions is a very different thing from operating in the freight house of a railroad station, for instance, or in a cabin in the mountains, and when we cannot have our surroundings aseptic, we must make all the more use of antiseptics, in the hope of reducing the chances of infection to the minimum.

When Listerism was first brought to the notice of the profession, its reception was not altogether an enthusiastic one, but its truths were so great and its results so remarkable that it fought its way into general use. Some of the older surgeons were very slow to adopt it, and I remember that the elder Gross, whose pupil it was my privilege to be, was for a long time bitterly opposed to it, so much so that, almost to the day of his death, the mere mention of carbolic acid to him, was like shaking a red flag at an angry bull. With a mind biased by such teachings, I was for a long time skeptical, but being induced to try it in an amputation of the leg (for necrosis of the bones of the foot and ankle, of long standing), the result so far exceeded my expectations that I became, and still am, a strong believer in the use of antiseptics.

We all know that the history of medicine shows that when the pendulum of medical thought and practice has swung too far in the one direction, it will sooner or later swing too far in the other; the use, abuse and subsequent abandonment of vivisection is an instance in point, for while I believe that blood-letting is an excellent remedial measure in more than one condition, its abandonment (because of its indiscriminate use in all manner of cases

brought it into disrepute), has been so complete that the young physician who has used the lancet at all, is the exception. Many of the advocates of chemical germicides have carried the use of them to extremes which are almost absurd, and which I believe are altogether unnecessary. For instance, in a recent medical journal, in describing the preparations for a simple amputation we find, among pages of directions for preparing instruments, patient, operating-room, &c., the following elaborate instructions for the proper disinfecting of the surgeon himself and his assistants:

"While the instruments are boiling, the surgeons and assistants sterilize themselves; first, if possible, with a thorough scrubbing bath; at any rate, by taking off the coat, rolling the shirt sleeves well up above the elbows and scrubbing the arms, hands and nails most minutely with aseptic soap and hot water, then rinsing and drying, trimming and cleaning the nails deeply all around to a fine manicure, then immersing the hands and arms in a saturated solution of permanganate of potash (germicide), then washing off this solution with a saturated solution of oxalic acid; as this acid is of an irritating nature, it is neutralized by immersion in lime water, and finally, hands and arms are rinsed thoroughly in a solution, 1-2000 of bichloride of mercury."

The bath the surgeon should take daily, anyhow, whether he was going to operate or not, likewise the manicuring, but if he was going to "saw my leg off" I should be satisfied if he scrubbed his hands and arms with etherial antiseptic soap and rinsed thoroughly with the bichloride solution, and would forgive him if he did not use the saturated solution of permanganate of potash, the saturated solution of oxalic acid and the lime water.

This is only a mild example of the extremes to which some of the enthusiasts carry the idea; many others could be cited. It has even been seriously urged that doctors should not wear beards, because of the danger of carrying infections, both medical and surgical, but, as yet, they have not asked us to shave our heads for like reasons.

On the other hand, we are now told by the opponents of the antiseptic theory, not only that fresh wounds should not be treated with antiseptics, but that infected wounds should not be disinfected; that "irrigation with carbolic and bichloride solutions in suppurative processes is regarded as superfluous and harmful." If they are thus regarded in "suppurative processes," they must also be so regarded in non-suppurative ones, but I should be willing to risk their "harmfulness;" in treating a case of lacerated perineum, for instance, indeed I should refuse to treat a case without them. They tell us that it is impossible to use germicidal solutions of sufficient strength to destroy the bacilli in living tissue without at the same time destroying the tissue: granted—but is that any reason why we should not use them within safe limits; destroy as many germs as we can and enfeeble the rest, so that they will not be so active and so powerful for evil? It might with equal force be argued that because a bath will not render the skin microscopically clean, one should never bathe.

In discussing the subject before this Society last year, Dr. M. Price, of Philadelphia, claimed that he could "go into the peritoneal cavity and enucleate a gangrenous appendix with pus and all that belongs to it, and by simply washing out with a pitcher of Schuylkill water and draining with a little lamp-wick gauze and rubber drainage tube, * * * guarantee that ninety-eight

cases out of a hundred will be cured beyond question, unless the patient is already dying." I have no right to dispute his claim as to the percentage of cures, but if Schuylkill water in 1895 was anything like Schuylkill water in the seventies, I can explain his advocacy of it only one ground, and that is that the Doctor must have embraced Hahnemannism and uses it according to the doctrine of "Similia similibus curantur." At any rate, I should most certainly protest against allowing him to operate on the appendix of a patient of mine by any such methods.

During the same discussion, Dr. J. M. Barton, also of Philadelphia, said: "I do not think the day has arrived yet when we can do without antiseptics in surgery. * * * In hospital work, surrounded by assistants accustomed to it, I use asepsis. In going a distance, and having assistants not used to it, I am in the habit of carrying with me a bottle containing an ounce and a half of carbolic acid with a little alcohol in it. That is thrown into a quart of water, and I use that solution for instruments and towels. I find that by using such means I can get antiseptic results, whereas, in trying to get aseptic results I have failed. In other words, in attempting to get antiseptic results under such circumstances, I get better results than when I have attempted asepsis alone. Yet I thoroughly recognize the fact that it is very desirable to try to have asepsis."

To my mind these remarks cover the whole ground of such surgery as the general practitioner is called upon to do. Owing to the surroundings in which he finds most of his cases, and the impossibility (in many instances) of having skilled assistants and trained nurses, asepsis, however devoutly it is to be wished for, is unattainable; consequently he should attempt to secure as great a

degree of surgical cleanliness as possible, by the use of antiseptics, and he usually succeeds or not, just in proportion as he is careful and painstaking in the use of them.

I believe that these are the views of the large majority of general practitioners to-day, and I believe that they are right; and I believe that experience has shown, and continues to show, that they are right. All honor to the eminent surgeons who, by their study and teachings, help to mould the practice of the rank and file of the profession; but experience is also a good teacher, and one who makes her influence felt in no uncertain manner.

We should not be in haste to throw aside any method which gives good results—most certainly not until the superiority of some other method has been abundantly proven. In this matter, as in all others, we should pay heed to the teachings of the inspired writer, and "Prove all things, hold fast to all things which is good."

ESSAY.

BY GEORGE H. BALLERAY, PATERSON, N. J.

CASES OF FIBROID TUMORS OF THE UTERUS, COMPLICATING LABOR—SUBSEQUENT DISAPPEARANCE OF THE TUMORS, WITH REMARKS ON FIBROID TUMORS OF THE UTERUS AS A COMPLICATION OF PREGNANCY.

The following cases are reported merely as additional evidence that fibroid tumors of the uterus, sufficiently large to offer a serious obstacle to labor, do occasionally entirely disappear after delivery.

Case 1. Mrs. C., aged 41, born in Ireland, fell in labor with her sixth child, March, 1886. She had anticipated trouble at her confinement during the whole of her pregnancy, and had, therefore, requested her husband to engage me to attend her, although her former labors, the last of which occurred five years previously, had been rapid and easy. When I was called to her the os uteri was fairly dilated and the membranes ruptured; head very high up, and apparently crowded back towards the spinal column; abdomen immensely enlarged; bladder full; pains frequent and very severe. I emptied the bladder and sat down to await developments. In a short time the pains became so violent that I thought it advisable to make another examination to ascertain the rate of progress. I found matters in *statu quo*—no advance whatever. The uterus, in the intervals between the pains, presented a peculiar appearance; the lower half

stood out much more prominently than the upper, and was very hard to the feel. In the upper half the walls of the uterus seemed thinner than normal. This condition, together with the violence of the uterine contractions and the non-advance of the head, made me apprehensive of the occurence of rupture of the uterus. I therefore sent the husband for my friend, Dr. I. L. Leal, requesting him to bring my obstetric instruments and some chloroform. Dr. Leal gave the anæsthetic and I applied Elliot's forceps. I soon satisfied myself that no justifiable amount of force would effect delivery by that method. I determined to try version, although I knew that under the circumstances it would not be easy. It was not easy, but it was accomplished; and although there was great difficulty in the delivery of the shoulders and the head, the the child, which was large and deeply asphyxiated, was born alive and is alive yet. After the child was born Dr. Leal remarked that the uterus was still very large, and on examination I found that it still reached about two inches above the umbilicus and was of strong hardness. As the placenta was not spontaneously detached, after waiting fifteen minutes, I introduced my hand into the uterus to remove it. With my hand in the uterus the true state of affairs was readily appreciated. A hard, fibroid tumor, as large as an adult head, occupied the anterior and lateral walls, and could be easily mapped out between the right hand in the uterus and the left applied externally. I feared that the detachment of the placenta would give rise to profuse hemorrhage, but I was disappointed; comparatively little bleeding followed the removal of the after-birth. Nothing untoward occurred during the puerperium, and at the end of the second week I allowed the patient to go about the house. A week after delivery the patient began to take twenty-drop doses of Squibb's

fl. ext. of ergot three times daily, and this treatment was continued for several weeks. Six weeks after delivery the tumor was found to reach the level of the navel. Six months later I examined the patient and found that the tumor had entirely disappeared. Query: Did the administration of ergot have anything to do with the disappearance of the tumor? An enthusiastic therapeutist might think that it had. I am of a different opinion.

Case 2. Was called September 16, 1886, by Drs. Quinn and Calvin Terriberry to see Mrs. K., aged 29, mother of one child, about three years old. Dr. Quinn was first called to the case and diagnosed a face presentation. The presenting part was high up, and remained above the pelvic brim in spite of strong uterine contractions. Finding that no progress was being made, the doctor applied the forceps and tried to deliver the patient. He pulled until he was exhausted, but his efforts did not advance matters in the least. He then sent for Dr. Calvin Terriberry. Dr. Terriberry made several attempts to deliver the woman with forceps, but finding his efforts unavailing suggested that I should be sent for. I found the patient with a pulse of 136 and very feeble; vulva and vagina swollen, hot and dry; the abdomen was very large and tender. A table was at once prepared and the patient, having been etherized by Dr. Terriberry, was placed upon it. A careful, but rapidly conducted, examination satisfied me that an attempt on my part to deliver with forcepts would result in failure. I therefore determined to try version, preferring that to craniotomy, although I knew, from the condition of the cranium, that the child was dead. Having pushed the head up sufficiently to get my hand into the uterus behind the head, I at once appreciated the fact that something very much out of the

usual order of things existed, but what the complication was I at that time was unable to understand. A large, hard mass seemed to be situated in front of the head and dipping down below it, crowding it upwards and backwards. As the woman's abdomen was unusually large, it occurred to me that possibly the mass in front of the head might be the hydrocephalic head of another child, so placed as to obstruct the descent of the first. This was merely a passing thought, as my hand at the time was not in contact with the mass—the head of the child intervening—but it was distinctly felt by the other hand applied externally, and there was a decided feeling of resistance when an attempt was made to press the head forward, as well as upward, while in search of a foot. Having found a foot I brought it down and continued the traction until the breech was outside the vulva. I then rested for a moment and afterwards proceeded to terminate the delivery. I would not have been so deliberate at this stage of the case if I had not satisfied myself by the flaccid, pulseless condition of the funis, when I passed my hand into the uterus, that the child was dead.

Much difficulty was experienced in the delivery of the shoulders and head. After the child was born the uterus remained as large as it should be at the sixth month of pregnancy. With one hand in the uterus and the other applied externally, the enlargement was found to be due to the presence of a large fibroid tumor, located in the anterior uterine wall. As the condition of the patient was such as to call for prompt termination of the third stage of labor, I proceeded to separate the placenta, which was attached principally to the posterior wall, by insinuating my hand between the placenta and the uterine parietes and quickly, but gently, departing its attachments. No great amount of hemorrhage followed the removal of the

after-birth, and as the patient's condition seemed fully as good as before delivery, I left her in charge of the attending physicians. After the removal of the placenta the uterus, splinted out by the tumor, which seemed as hard as a brick-bat, reached to about one and a half inches above the navel. The diagnosis of fibroid tumor was verified by both the attending physicians.

The following day I learned from Dr. Terriberry that about twenty minutes after I left, without any hemorrhage having taken place or anything else to account for it, the patient suddenly became cold and pulseless and seemed to be dying. Brandy was freely injected under the skin and the patient rallied and ultimately made an excellent recovery. Eight months later this woman came to me in great distress of mind and informed me that she had not menstruated in two months and wished to know if she was pregnant. She told me that Dr. Quinn had said, after her last confinement, that if she ever became pregnant again and went to full term that she would probably die in labor. I was only too glad to have the opportunity of making an examination, not, however, with a view of establishing a diagnosis of pregnancy, as the presence of a uterine tumor larger than an adult head would make the diagnosis of a two month's pregnancy rather conjectural, but to observe what change, if any, had taken place in the growth. To my surprise, no tumor was to be found; the uterus was perfectly normal. The blueish discoloration of the vagina, velvety feel of the cervix and inclination forward of the fundus, together with the changes in the breasts, left no doubt in my mind as to the existence of early pregnancy. I informed the patient of the result of my examination and sent her away rejoicing. The diagnosis of pregnancy proved correct. She was safely delivered, at full term, by one of my medical

friends, and after the delivery of the placenta the uterus seemed of normal size and consistence.

En passant, I will briefly refer to a case which I saw in consultation with Dr. A. N. Rogers and the late Dr. I. R. Leal about fourteen years ago. The lady was a primipara. Delivery with forceps had been found impracticable and I was asked to perform craniotomy. After delivery, a fibroid tumor as large as a duck's egg, with a pedicle about an inch and a half in diameter, was found in the anterior uterine wall. The tumor stood out from the uterus like a door-knob, and by grasping the tumor the uterus could be moved from side to side. The circumstances calling for craniotomy had no relation to the presence of the tumor, but were of such a nature as to render that revolting operation imperative. Nothing was said to the patient, or her relatives, in regard to the existence of the tumor. She made a good recovery, and two years later I attended her in her second confinement. She had an easy labor, and after delivery I carefully examined her uterus, but no vestige of the tumor could be found.

A case came under my observation some years ago which proves that occasionally a very large fibroid complicating labor offers no special obstacle to delivery. Mrs. V. E., aged 30, primipara, wife of a druggist, was attended by Dr. D. in her confinement. After the birth of the child, and natural expulsion of the after-birth, the uterus remained so large that the presence of a second child in utero was suspected. Not being able to satisfy himself on this point the Doctor sent for Dr. T., who was unable to throw any light upon the case. My young friend, Dr. I. L. Leal, was then asked to see the case, and properly diagnosed it as a fibroid tumor of the uterus. The circumstances of the case were mentioned to me at

the time, and I ventured the opinion that during the process of involution the nutrition of the tumor would become impaired and that it might diminish in size, if not entirely disappear. My prognosis was not verified. Four months later the patient came to consult me in regard to the propriety of an operation for the removal of the tumor. I found a large, solid fibroid reaching two inches above the navel. The patient was under the impression that the tumor was increasing in size.

Small or moderate sized fibroids existing prior to conception sometimes disappear by absorption during pregnancy. Emmet, in the first edition of his work on gynæcology, relates such a case, and the lesson which it teaches is worth remembering. He was called to see a lady of wealth and high social position, residing in Brooklyn, whom he found to be the subject of a retroverted uterus, pregnant about three months, and containing a fibroid in its anterior wall of the size and shape of a door-knob. He replaced the uterus, but thinking himself not sufficiently *au fait* in matters relating to obstetrics to decide the question of allowing the patient to go to full term, he called to his aid the late Dr. George T. Elliot. It was decided to allow the patient to go to full term, and she was advised to take up her residence in New York, in order to be under Dr. Elliot's immediate care. When she fell in labor Dr. Elliot was detained out of town by a consultation, and the late Dr. Budd was called to attend her. The patient had an easy labor, and Dr. Budd, finding no tumor, declared his belief that one had never existed.

Emmet says: "Dr. Elliot and myself simply had the opportunity of verifying Dr. Budd's statement that she had no tumor at that time, but we were denounced for our ignorance, and for the anxiety we had caused."

Another case of fibroid tumor of the uterus complicating labor, came under my observation in December, 1885. I had seen the patient in July of the same year, just previous to my departure for California. She was 29 years of age, had been married three years, but never been pregnant. She had a tumor which reached about half an inch above the umbilicus, and as she had not menstruated for three months, and the breasts presented some of the appearances characteristic of pregnancy, I expressed the opinion that she was probably three months pregnant. I advised her to call on my assistant should she require any medical attendance during my absence, and that on my return I would take charge of her case. I remained away from home much longer than I had anticipated, and a few days after my return I was asked by one of my hospital colleagues to assist him to perform "laparo-elytrotomy" on the case.

I learned that by the advice of some of her friends, the patient had consulted a physician in regard to her case, about two months after my departure for the West. She told the doctor what I had said, and he not being willing to assume the responsibility of the case, called my colleague in consultation. It was decided to allow the patient to go two months longer and then be governed by the indications as to the best course to pursue. The attending physician, in the meantime, saw the case occasionally, and my colleague states that about the time appointed for another consultation, the attending physician called on him and informed him that the fibroid had entirely disappeared. They then concluded that it had been absorbed. I am told that when the woman fell in labor the fibroid came prominently to the front and opposed a barrier to the descent of the head. The forceps were applied, but delivery by means of that

instrument was found impracticable. It was then decided to perform "laparo-elytrotomy," and it was at this juncture that I was asked to see the case. The woman's pulse was 120°, but she did not seem to be very much exhausted. The usual incisions were made and the head delivered with forceps. What seemed to me to be a considerable amount of blood was lost when the section of the vagina was made. The child, which was of about average size, was still-born. The woman died in about thirty-six hours.

Whether version or craniotomy would have given a better result, it is, of course, impossible to say, but there is one thing certain, and that is that the result could not have been any worse. I was not asked for my opinion as to the choice of operations in the case, consequently I made no vaginal examination and am, therefore, unable from personal knowledge to state what the exact condition of things was. I was asked to assist to perform "laparo-elytrotomy" and I assisted. The woman had no deformity of the pelvis, and I know of no reason why she might not have been delivered by version, but no attempt was made to accomplish delivery by that means. The ease with which the head was extracted with forceps after the necessary incisions had been made, was a matter of surprise to me. If, as stated, the tumor was so placed as to offer an unsurmountable obstacle to delivery with forceps before "laparo-elytrotomy" was performed, and still was in the walls of the uterus, why should the simple division of the tissues in the groin and vagina have brought about such a metamorphosis?

I must confess that to me the necessity of the operation of "laparo-elytrotomy" is not apparent. If in any case a uterine tumor is so placed as to obstruct delivery, and version and podalic extraction or the forceps, or, if

need be, craniotomy, are not feasible, and delivery by a cutting operation is imperative, then the uterus must be entered *above* the tumor, *not below* it. It is much to be regretted that no post-mortem examination could be obtained, and that so much valuable information should have been buried with the patient.

If time permitted, I could cite other cases of which I have histories, as further evidence that large fibroid tumors, complicating labor, may entirely disappear after delivery. In these cases the tissues of the myoma undoubtedly undergo the same process of fatty degeneration, disintegration and absorption as takes place in the muscular structure of the uterus itself. The process by which fibroid tumors existing prior to conception disappear during pregnancy is not clearly understood, and when we say that the tumor has been *absorbed*, we simply use that word as a cloak for our ignorance. Why a tumor which may have existed for a long time in a non-pregnant uterus should disappear during pregnancy—a period during which the nutrition of all the normal tissues of the uterus is in a state of increased activity—is something which we are unable to explain.

As regards the management of cases of labor complicated by large fibroids, I believe that if delivery of a living child *per vias naturales* is practicable, that podalic version and extraction offer the best chances to both mother and child. In the case of a large, unyielding tumor, occupying the lower segment of the uterus, and so obstructing the birth-canal as to reduce the choice of operative procedures to either embryotomy or Cæsarean section, I should unhesitatingly decide in favor of Cæsarean section.

ESSAY.

BY PHILIP MARVEL, M. D., ATLANTIC CITY, N. J.

SOME CLINICAL OBSERVATIONS REFERRING TO AUTO-INTOXICATION, OF GASTRO-INTESTINAL ORIGIN, AS A CAUSE OF DISEASE.

Chief among the absorbing topics in medical science to-day is infection. The science of pathology and of bacteriology are insufficient as yet to dismiss the possible uncertainties pertaining to the study of infection, or of determining positive laws governing its origin, inception and activity. The practitioner is alert to apprehend its aggressive onslaught in every known way, and the greater part of the surgeon's life-work is given to dealing with the complications arising from infectious absorption. Each day brings with it some "more recent" reports concerning the reception and activity of germ life, and a means of determining their destruction. The whole medical world is aroused in pursuit of these agencies, and there seems an era now dawning when certain of these infectious poisons, though old as mankind, will become better understood, and receive the attention they demand. The particular poisons to which reference will be made in this paper are those producing self-intoxication, and diseases arising therefrom.

Auto-infection, as defined by Foster, is the infection of the organism with a poison generated within itself; and auto-intoxication, poisoning of an organism with matter

produced within itself. The definitions of these terms are sufficiently relative, within our present knowledge, to permit of their interchangeable use; therefore, they will be so treated in what follows.

The channels of infection in the body are the blood, and lymphatic systems, the cellular tissues, glandular fluids and putrifactive foods. The supposed cause of auto-infection is a toxic substance generated within the body by the action of bacteria, on protied matter. As to the æteology of the bacteria, or the chemistry of the poisonous substance produced, it is outside of the province of this paper to discuss. There are few diseases into the functional derangement of which these poisons do not enter more actively than other known causes; and this may be stated as equally true of death—for there are few into the cause of which they do not enter most largely. Toxic material is always present within the body and constitutes no small part of the waste products of the animal economy. The blood and lymphatic systems are common carriers, and become the most vital agents for or against its diffusion through the general body. When the poison is in excess of the power of the vital fluids to make inert or in some way inactive, whether from increased production or deficient normal secretion or excretion, impaired function or even death may be manifest. The poisonous substances which are herein considered, according to Pasteur, are formed by the presence in the body of complex substances capable of combining with acids through the action of fermentive bacteria forming salts which correspond to organic and vegetable bases. These may be considered alkaloidal substances, of which some are poisonous and others are non-poisonous. The former, following the order of Breiger, I will call "toxines," and the latter, "ptomaines."

The sources of the poisons are within the gastro-intestinal tract, and arise from putrifactive changes in foods—which developed largely within the alimentary residues (though in some instances outside the body)—bile (owing its toxic properties to coloring matter and billiary salts) and fæcal accumulations. In fact, all animal excretions, additional to the foregoing, including urine, saliva, carbonic acid and sweat, are poisonous. The chief avenues through which elimination of these toxines or poisons take place are the kidneys, alimentary canal, the lungs and the skin.

The subject of auto-infection is so important, and the source of intoxication so pertinent and constant, that I have of necessity chosen to limit this discussion to some of the diseases having their origin within the gastro-intestinal tract, though reference will necessarily be made to the hepatic fluids and their influence upon the intestinal contents, and also to the excreting action of the kidneys This already brings me to the consideration of the protection afforded the economy by the aid of its own secretions and elimination. An examination of bile, according to the experiments of Bouchard, a French clinician, proved that from four to six cubic centimetres of bile are required to kill, in convulsions, a living animal weighing one kilogramme. Since the daily secretion of bile amounts to about eight hundred grammes, we must conclude that during every twenty-four hours a man, by his hepatic secretions alone, relieves himself of an enormous amount of poison. It is further estimated by the same observer that it requires five cubic centimetres of bile and forty-five cubic centimetres of urine to kill one kilogramme of living matter; also that the quantity of bile secreted in twenty-four hours by a man weighing one kilogramme would be capable of killing 2,690 grammes of living

matter, and that the urine excreted by one kilogramme man would be capable of killing only 444 grammes of living matter; hence, bile would seem to be nine times more toxic than urine, and the toxic activity of the hepatic excretions six times more active than the toxic activity of the urine. Reasoning from this we readily apprehend the danger which results either from an interference with free elimination or from re-absorption. We are told also that more than one-half the bile normally secreted in twenty-four hours is eliminated by the bowels, and the other half, which is not absorbed—or the evidence would be in the urine—is disposed of in some unknown way. Admitting these observations to be possible, the question at once arises, Whence the origin of these poisons? All toxic substances existing in the excretions must be produced by the decomposition of animal or vegetable foods received within the body by the fermentative action of bacteria, and the disintegration and reparation of cell life within the economy itself. Whatever may be the process by which man is protected from the dangers which science has intimated to him, this is sure, that there is somewhere within the economic forces of the body an unknown means of transforming toxic elements into inert substances, and that by some wise means we are in a limited way protected against the daily threatenings of death. In the maintenance of life there is a repetition of integration and disintegration; of processes of building up and of breaking down. Man is but the representative of limited forces, continually exposed upon the brink of a precipice; constantly upon the threshold of disease; every moment of his life beset by the yet indeterminable influence of a subtle poison within his body, and rescued therefrom only by the generous activities of his own vital functions.

Borrowing from a recent paper read by me before the William Pepper Medical Society of the University of Pennsylvania—"If 'toxines' owe their presence to the activities of micro-organisms, it must follow that the toxines formed will depend upon the peculiar bacterium present; the special condition and temperature under which putrid changes takes place; the nature of the material acted upon, and the condition of the health of the individual in whose body the putrifactive processes are taking place." It is easy, therefore, to infer that one will observe different degrees of poisoning arising from the same toxines in different individuals, and also from different toxines in the same individual. Having thus briefly referred to the alkaloidal substance of toxines capable of producing disease in the economy, and their source, together with some of the possible modifications, we will consider the observations herein being reported under the classification of Acute and Chronic Auto-Intoxication, regarding those of recent and sudden onset belonging to the former, and those more insidious as belonging to the latter.

So far as is now known, the operative causes are the same in both, the difference being one of modified activity and not of kind. Perhaps no place in our country offers greater opportunities for wide observation in these particular conditions than my own city. Its atmosphere and saline waters—the physical properties of which are known to the greater part of the world—are inducements that challenge equality, and received the visitations of thousands, who, for one reason or another, are brought under the physician's care. Owing to this fact, the number of cases ordinarily seen is greatly augmented. There are those who, with a generous desire to satisfy their palate, disregard the gentle remonstrance of their

stomach till in desperation it revolts by frequent efforts at releasing itself from an over-burdened load of fermenting and undigested accumulations, thus satisfying the epicure that other than normal forces have temporarily assumed control. Again, autumn, winter and spring bring us those cases of a type more insidious and less acute—those in which "toxines" have already wrought great change in cell activity and gradually impaired health. ful functions.

In the acute form a truly characteristic phenomena may be witnessed, after the reception into the stomach of tainted animal tissue, or the presence of indigestible food products in which active fermentation is quick to follow. An unusual development of gas, tympanities, burning sensation in the stomach, gaseous eructation, increased flow of saliva, acid vomiting and diarrhœa, burning in the rectum, increased formation of sulphurated hydrogen, stools changing to greenish color with tenesmus and intestinal cramps. Accompanying these objective symptoms are those subjective in character, viz.: Fatigue, depression, headache, dizziness, and a sense of lightness in the head, increasing to vertigo, with slow and at times irregular pulse. If the excretory functions of the eliminating organs be impaired or arrested, graver phenomena are present, aggravated vomiting and diarrhœa, reduction of temperature, paresis of the peripheral circulation, intensified cramps, convulsions, coma and death.

These attacks are to be differentiated from those of impaired or simple indigestion, and other gastro-intestinal disorders, by sudden onset following from six to twenty hours after taking food, the increasing severity of the symptoms in many cases, when foods cease to be vomited, the confirmative evidence of similar illness in others who have partaken of the same food (though the absence of the latter is not proof to the contrary).

The evidence of varied nervous phenomena, such as vertigo, irregularity of pulse, disturbance of temperature, intensified intestinal cramps, convulsions, etc.

The following cases illustrate a few of the different types of acute auto-intoxication arising within the gastro-intestinal tract:

Case No. 1.—Mrs. A., married woman; age 31; one child; previous health, fair; history, good.

Having eaten heartily of meat and fish in the morning, in the afternoon was shopping, when she suddenly complained of intestinal pain, dizziness, and fell to the floor in what seemed a faint. When taken to the after-part of the store she recovered partly and was able to converse —though she evidenced a decided hysterical state, laughing and crying, and at intervals varying from a half to two hours, was seized by a condition similating hysteroid convulsions. As these attacks recurred she became less lucid, till toward the following morning, unconsciousness supervened, and subsequently coma and death. Autopsy revealed the presence of but one kidney, the other being congenitally absent. This was about normal in size and firmness, evidence of arterial injection, but no pathological change; capsule loose. Section showed the cortex and malpighean pyramids of proper consistency and formation. Microscopical examination of hardened section showed no evidence of disease.

Case No. 2.—A gentleman; age 46; rather stout and fleshy; former health good; had recently come to the shore; good appetite; ate freely of various foods. In three days became languid, tongue coated, malaise headache, abnormal distention, constipation, nausea with some gaseous eructations, suddenly seized with chill, high fever —104⅘, vomiting, intense gastro-intestinal pain, pulse weak, skin alternating, hot and dry, moist and cold;

intense headache. After all food was absent from the vomit, emisses continued, even aggravated, temperature became subnormal, and with difficulty was able to keep him comfortable. After three days these symptoms subsided and the patient had a slow convalescence.

Case No. 3.—Servant girl; unmarried; age 19; anæmic; neurotic type; complaining health; medium size; slightly stooped; had eaten freely of fish the previous night; sudden onset; uncontrolable vomiting of sour and undigested food. Headache, very intense intestinal pain with subnormal temperature, chilly sensations, cold sweat on extremities, feeble pulse, diarrhœa, continuing for three to four days.

Case No. 4.—Thirteen adults and four children in the same hotel, having eaten crabs and broiled chicken, singular as it may appear, all developed an illness within twelve hours of taking food, and no one in the hotel except these and three or four others who ate crabs and not the chicken—and were only slightly disturbed—were ill. The first to grow ill were two of the children about six hours after the meal. Then one after another, at different hours, became victims, till all to which reference is made were confined to their beds. Some were seized with epigastric pain, followed by vomiting and diarrhœa; others by vomiting, extreme weakness, palor and faintness; others, again, with diarrhœa and intestinal cramps, which increased and became quite choleric in character; muscular cramps, temperature subnormal, cold sweat and collapse. One child was seized with convulsions, which were repeated three or four times at short intervals, semi-consciousness in the interim, strabismus and rolling of the head, ceasing after free emesis and relaxed bowel movements.

It has been my good fortune very recently to observe

two more cases in which extensive skin eruptions were very marked. The one an erythema, simulating a most perfectly defined measly rash, and the other a decided scarlatinous one. In the first case, an opinion had already been given before I saw the boy, that it was a case of measles. Having observed similar cases at different times before, in the absence of certain positive evidence, I contended to the contrary. The temperature was but slightly raised, after the rash appeared, being, however, at the time $103\frac{3}{5}$, following an initial chill, but subsiding after a few hours on the appearance of the rash, which came first upon the face and back, and quickly spread over the body. The history of the case was as follows: Constipated, with no bowel movement for four days, engorgement of all sorts of foods, entree, desserts, fruits, etc., and the disposal of two pounds of salt water taffy. In this case, the most peculiar fact to me was the absence of vomiting, and but a small degree of nausea. The rash remained for two days and suddenly disappeared, when the bowels became very active from repeated doses of a saline laxative.

The second case, that of a baby six months old, poorly nourished, feeble, mild chronic entro-colitis, apparently as well as usual, nursed a bottle of curdled milk. In six hours a high fever occurred, temperature 104, pulse 178, vomiting followed with convulsions, persistent constipation. Rash developed in less than eighteen hours, appearing upon the body and face simultaneously, after which temperature became normal, and subsequently subnormal; disquamation from an actual dermatitis took place in four days.

The differential points from measles and scarlet fever considered were, with first, the knowledge of engorgement and persistent constipation, absence of cough and

catarrhal symptoms, which characterize measles; no follicular injection of the tonsils, or evidence of rash in the soft palate. (The latter I have never seen absent in any case of genuine measles.) Also, the determination of the fever and the rash, and the further proof, those exposed were not inocculated.

With the second case: The absence of angina-laryngæ or throat evidences, sudden reduction of temperature while the rash still appeared, general and rapid improvement on free elimination from bowels, no secondary or dermatic fever, no inocculation of those exposed.

The special features of interest in these varied cases are: First, the rapid dissolution and death in the first, with symptoms that would denote the condition recognized as uræmia—the absence of organic disease, as evidenced at the autopsy, also the congenital absence of one kidney. Doubtless the one lesson to be learned from this case is the danger which might come to any one, through any influence acting directly or indirectly upon the functional activity of the excreting power of the kidneys—the greater danger to those who, by disease, may have a limited excreting power, and most of all the accidents that could, and is not at all unlikely, to happen with those who have been so unfortunate as to have had a nephrectomy. That in Case 2: The initial evidence of poison was by chill and high fever, continuation of vomiting after food ceased to be present in the vomit, and temperature becoming subnormal. Perhaps the chill and high fever suggests an explanation in the possibility of acute gastritis, but no tenderness, except that which necessarily followed the continuous vomiting, was elicited over the epigastrum; and, again, the temperature role would have behaved differently. We would have expected symptoms corresponding to excitement rather than depression.

In Case 4. The large number affected, and the singular fact that only those who partook of the two kinds of food were affected, the special difference of symptoms in different individuals, and the speedy relief to the graver nervous symptoms in the younger child, when the irritant or offending food had been removed.

Cases 5 and 6. Attention is called especially to the rash, to the distinct differences, and to the singular similarity to measles in the former and scarlet fever in the latter. More directly speaking, with Case No. 1. I cannot claim it as properly belonging under the foregoing title, nor is it reported in this connection to be thus accepted. Having made reference to the toxicity of the animal excretions, particularly the *bile* and *urine*, this case serves to illustrate what occurred when there was only a suppression of urine for a few hours, occurring with what first seemed an aggravated case of acute indigestion. Regarding the facts as they occurred, and in the absence of more positive proof of the active cause, I am not disposed to offer an opinion in this case. It is well known that simple suppression of urine may take place for a much longer period than occurred in this case, which was only about 16 to 18 hours, with no serious effects, and likewise I may dispose of the intestinal colic; hence, there remains one possibility, at least, viz.: that death was due to a cause operating from within, and that the evidence points, more directly, to that of intestinal origin, greatly assisted by the absence of one kidney and the suppressed functions of the other.

No attempt is made to explain in this paper why this varied panorama of symptoms arising from but slightly varied causes; and while I am not prepared to say that in these acute cases the toxines are wholly responsible for the illness manifest—for it is my opinion, the mechanical

irritation resulting from the presence of undigested foods within the gastro-intestinal tract is sufficient at times to account for fever and a number of the nervous phenomena—yet there still remain evidences of disturbed function which must impress us as being due to causes other than mechanical. We therefore deduce from this that acute auto-intoxication most frequently arises from the indigestion of food in which there have already begun bacterial change, or in which they begin shortly afterwards, and in either case, the immediate cause is the absorption of toxines into the circulating media. As a matter of fact, where putrid changes have already taken place in food, before ingestion, we have no proof that will warrant the statement that this special poison is wholly responsible for the condition which follows, for observation has shown the stomach to be free from any disturbance for several hours after taking the food, and in the majority of cases equally long as when the change takes place wholly within the economy.

Auto-intoxication *may* develop at such times as the amount of toxic material introduced into the blood exceeds the activity of the excretory organs charged with its elimination. A great number of the more favorable of these cases seen, are classified as acute indigestion, acute colic, cholera morbus and biliousness, etc., but as we come to know more of the nature and true origin of such attacks, it is my judgment, we will recognize a greater variety of these attacks as due to a toxic cause, but arising under different conditions. In passing from the acute to the more chronic, I come to the consideration of a class of cases in which intoxication does not operate in a transitory manner, but the result of weeks, months or even years, as it may be. The greater number of diseases which influence the gastro-intestinal tract,

and with which perfect digestion and normal elaboration of material is impossible, give in a greater or less degree, evidence of the operative influence of toxines. Those from which we are most likely to observe the evidence soonest, are atonic dyspepsia, entero-colitis, chronic diarrhœa, dysentery, cancer of the stomach, and intestines, and dilated stomach, the latter, together with mechanical causes, possibly of all others, are those we are likely to most frequently meet. To the diseases may be added mechanical causes which operate to retard normal elimination, as recent contractions of the bowel, adhesions from general or local peritonitis, obstruction from insufficient peristalsis, or atonic muscularity. To the thoughtful investigator, the question as to how a local disease, *i. e.*, pathological changes in tissue and function, in a given area, *could* explain so decided a general systemic involvement, except there were produced a material force which, through some means, diffused itself through the economy in a manner whereby the elimentary forces and the nervous system became energetically impressed. All have witnessed the rapid and most wonderful tissue impression by septic poisons, and regarded with gravest apprehensions the outcome of its introduction.

By *this* reference, I do not wish to press an analogy, yet the greatest difference, so far as we know, is largely due to the presence of alimentary fluids containing so-called antiseptic elements, which in many instances are quite sufficient for self-protection, and to the chemical and physical difference of the poisons. It is reasonable to claim that cell life has many properties in common, and that they are influenced by the same general laws, except in special force. If we understand the mechanism of death in disease—where the infectious agent is spread out in the whole of the organism, in the blood, or in the

principal viscera—how could life be arrested by a disease in which the infectious agent rests on the surface of the mucous membrane of the digestive tubes, if that infectious agent does not form a poison, which, being absorbed, diffuses itself through the whole economy so as to impregnate the cellular elements and to energetically impress the nervous system? We, therefore, conclude with Bouchard, who is responsible for the statement that "Secondary intoxication can alone explain the fatal accidents consecutive to surface infection." Under the class of chronic cases, brief reference is made to the diseases in which we are most likely to observe the operative influence of toxines upon the general economy. Time will not permit of a separate discussion of these diseases, hence I shall only refer to dilated stomach and fecal accumulations as being the *two most* common causes of chronic auto-intoxication. For observations relating to the former, you are referred to Oliver's translations of Bouchard's lectures on auto-intoxication in disease. Without attempting the diagnosis of dilated stomach, or to describe the causes which predispose to it, that such a condition exists, none will deny. I am responsible to you for the statement that my observations in this condition enables me to speak with reference to the statements made by Bouchard, in the lectures to which reference has been made, with some degree of affirmation, although I have not yet proven its existence in an equally large percentage of the cases which I see, I am free to admit my surprise has been that I have even met so many. Without further reference to the actual existence of dilated stomach, I will satisfy the reference by considering in what ways this condition may conduce to the production of toxines.

1st. The disarrangement of the structural tissues.

2d. The consequent interference with the nerve energies, relating to the gastric secretions.

3d. The impairment and destruction of animal force, thereby favoring fermentation and abnormal productions.

4th. Prolonging the digestive period, thus aiding putrefactive processes; all of which are favorable to producing toxines, and prepare the best known media for their development. Whether the toxines are actually absorbed in part from the stomach, or alone from the intestines, I am not prepared to say, but certainly, the evidence that they may form therein, is past contradiction. Possibly, through the discoveries of a Tesla or an Edison, should either of them realize his greatest anticipation, we may be privileged in the near future to observe, by the aid of skiascopy, the circulating fluids within the different tissues; if so, we may then determine easily the outlines of the different organs, and the fluids absorbed therefrom. I cannot quit the reference to dilated stomach as an active cause in the production of toxines, without calling attention to a comparison of disturbances arising from a kidney, when there is serious functional interference. As a result from general disturbance, we may observe dropsies, headaches, pruritus, deafness, amouroses, functional derangement of the heart, hypertrophy of the left ventricle, uræmia, etc.

Now, if to the kidney, an organ with functional dignity inferior to that of the digestive tract (of which the stomach is a part), eliminating matter without altering it, there can be attributed so many disturbances, what, therefore, can be the trouble when the stomach is generally deranged? The impairment of function of this organ does not only disturb the alimentary tract, but the whole economy.

As to fecal accumulations and obstructions within the intestines, I have selected the report of a few cases, illustrating the point in question.

Case No. 1.—Man, age 26; previous history and habits good; strong, robust and temperate. After several days of a pronounced tired, weak feeling, heavily coated tongue, foul, fetid breath, slightly subnormal temperature, 97⅘° and 98°, tardy action of the bowels, highly colored urine, somewhat less than normal in quantity, he was suddenly seized with chill, temperature rose to 104°, vomiting and intense general muscular pain. The following day, chill was repeated twice, with similar accompanying symptoms, at about 9 A. M. and 3 P. M. On close examination, a circumscribed hard mass was noticeable in the ascending colon, at about three inches above a line drawn through McBurney's points, localizing the appendix. The following day the mass changed position and encroached upon the area of the left lobe of the liver. In the early morning of the fourth day occurred another chill, which repeated during the day at 3 P. M. and 11 P. M. Temperature now reaching, after the seizure in the early afternoon, 105⅘°. Inability to pass urine, and extensive tenderness over hepatic region, with marked tympanites. After repeated attempts to bring about an action of the bowels, movements were obtained, in which were large quantities of granular black particles of old fecal matter, the urine, by catheter showed the presence of biliary coloring matter, and a distinct amount of albumen. The case presented on the seventh day, the following report: "Temperature, 101⅘; pulse, 80; respiration, 26°; hepatic tenderness, slight tympanites; talks at times incoherently." The following week continued about the same. On the eighteenth day of the disease the temperature became normal; continued with

slight variations for about a week, during which time there developed distinct areas of apparent bronchial breathing. I say apparent, because there was no fixity or permanence to the area involved, being noticeable in one lobe of the lung to-day and in the other lobe to-morrow, as was the case two or three times, in the other lung. (These observations were confirmed by the consultant who was in attendance with me). Repeated examination of the urine now showed no albumen, or any evidence whatever of interference with normal renal functions. This case passed with perfect convalesence, and has since shown no evidence of impaired health whatever. If this was a case of typhoid fever, as may have suggested itself to some of you, surely, there were special features which do not at all tally with a typhoid case. Again, if this can be explained by complicating typhoid fever with fecal impaction, the time was really shortened, and may be considered as one means of aborting typhoid fever. I may be wrong in my conclusion, but in the absence of epistaxis, diarrhœa, tympanites after the bowels were once relieved, the repeated evidence by chill of absorption of toxic material in the blood, I must, for the present, until our knowledge is more accurate, hold that this case is truly one which represents a form of auto-intoxication.

Case No. 2.—By permission. A German woman, 38 years old, married, three children—at the time nursing baby—healthy and robust. Was suddenly seized with chill, followed by fever and intense pain in the right inguinal region, arrest of milk, pain continuing so severe as to require repeated hyperdermics of ¼ gr. of morphia, two and even three times daily, and vomiting of billiary matter, after having relieved herself of the food in the stomach. On the fourth day of the disease I was called

by the attending physician, who feared appendicitis. Careful examination proved a hardened mass at a safe distance above the head of the colon, and helped to establish the diagnosis of fecal impaction. Pain and vomiting continued even in an aggravated form, temperature irregular, varying from 99 to 102, pulse quick and forcible, mass still resisting. A second consultant was called, and before the arrival of whom, the mass was transferred to the transverse colon, where, by pressure possibly, but more likely from other causes, inflammation in the ductus choledochus was excited, which resulted in jaundice and subsequent hæpatitis. Repeated salines in liberal doses finally succeeded in breaking up and dislodging the mass. The case, though at one time presenting grave and threatening symptoms, finally convalesced and is now, more than two months since the beginning of the attack, in fair way to recovery.

Case No. 3.—Man, aged 87, Hebrew; former health good, till the past two years, during which time has been afflicted with gastro enteritis; evidence of mal assimulation; had lost 18 to 20 pounds of flesh. On the occasion of my visit he had eaten heartily of an ordinary meal, after exposure in the sun on a hot day in the early part of June. Shortly after taking food he was seized with stomachal cramps, which, later, extended to the smaller intestines. Relief was given and free evacuation obtained, after which he seemed improved. Little apprehension was excited till two days later, when a severe chill, followed by high fever, temperature 103$\frac{4}{5}$, vomiting, localized tenderness of a mild type in the right epigastrum, followed by jaundice and marked general nervous depression; for two days the condition of patient remained about the same. A consultant was called. On the following day condition of patient was worse. Sensa-

tion in localized areas on face and on flexor surfaces impaired; purpuric spots manifest on the upper surface of second toe, near the end, on left side; blindness of the right eye, true panophthalmia, with disintegration, within twenty-four hours, and total destruction in less than thirty-six hours. Slight albuminous reaction in urine at the beginning of the jaundice, but none before; no sugar, nor microscopical evidence of nephretis. Extension of paralysis to sensation, resulting in gangrenous areas and death.

Case No. 4.—A brother of mine, aged 27, practicing physician; former health good, till March of this year; while on duty in a hospital, contracted diphtheria, since which time there has been a decided lack of proper functional tone. Highly colored, scanty flow of urine; normal sp. gr.; persistent torpidity of the bowels, poor appetite, general malaise, loss of weight, irregular temperature—morning sub-normal and evening slight rise; finally, a persistent constipation, which resisted salines, enemata, etc., for six days, at the end of which period, by the aid of castor oil, a movement was obtained. At this time repeated chills, recurring with no regularity, followed by fever, reaching 103.5, general abdominal soreness more manifest over the region of the ascending colon. Repeated examinations failed in localizing any evidence of a mass, further than there was a modified dullness over the region of the ascending colon. Even after repeated movements were obtained, chills continued to recur with rising temperature, and not till one week after the bowels were moved was there much evidence of improvement, other than temporary relief after each evacuation. At the end of a week, after not less than between twenty-four to thirty large movements from the bowels, in the most of which were observed quan-

tities of hardened granular, fecal matter, and even scybalous masses, when a decided change began, since which time he has continued improving, and reports himself at this time able to go where he wishes and feeling very well indeed, except weak.

Two weeks after this was read, he had a relapse, lasting a week, during which time he passed from the bowels, a mass, in which was a quantity of small seeds, the same, to his knowledge, had been within the bowel more than a month, as he had not been allowed to eat fruit of any kind during his illness. When the thorough purging used in this case is considered, one is astonished at the retaining power of the bowels against such active and persistent force.

Case 2 differs from Case 1 in many respects, but particularly so in the presence of uncontrollable pain, greater resistance of the mass, jaundice, more pronounced disturbance of the liver, and less prominent of the kidneys and lungs.

It is possible that the pressure exerted by the fecal mass whilst passing from the ascending colon through the first part of the transverse colon, is responsible for the inflammation in the ductus choledochus, and secondarily for the hæpatitis, but I rather doubt this; and even so, the chill, nervous phenomena, the influence upon lactation and the vomiting, were evidences which require the presence and absorption of toxines or some subtle poison to explain. In Case 3 your attention naturally is directed to the possibility of there having been serious brain disease, and so it was with those of us with whom rested the responsibility of his treatment. I may be pardoned if I state the consultants' names in this case, who were Drs. Kaemmerer and J. M. DaCosta, because it will enable me to leave the diagnosis with you without further discus-

sion, which was catarrhal jaundice, of infectious origin, and that he finally died of causes multiplying within his own organism, which we called "auto-infection."

I cannot quit the subject without here briefly referring to what I believe to be more than possible, viz.: That a number of these cases are diagnosed as typhoid fever, and when treated according to the ideas held by not a few—that of intestinal anti-sepsis and elimination—they get well in from ten days to three weeks, and are thus declared as results favorable to the abortive theory, when the facts are, they were not typhoid at all.

Studied as a whole, these cases point to one common direction, viz.: That there is, accompanying these accumulating fecal masses, a poison capable of influencing, even in a serious way, the general system, and that unless the proper attention be given to their elimination, sooner or later, such influence is made manifest.

Having given you in a hurried and very imperfect way some of the evidences which I have observed and chosen to refer to, under the foregoing title, I feel sure the subject is one which is worthy of further and more careful thought than the medical literature of to-day represents, and these notes will have answered the purpose for which they are here given, if by their review it shall interest some of you who have the time and opportunity to demonstrate, in a scientific way, the few facts to which I have, in a very imperfect manner, endeavored to direct your attention.

ESSAY.

BY D. M. RAVENEL, M. D., OF PRINCETON, N. J.

BACTERIOLOGICAL LABORATORY AT PRINCETON.

The science of bacteriology needs no defense at this day, and constantly abundant evidence is accumulating as to the value of bacteriological methods in the diagnosis of disease, and in hygiene sanitation and quarantine. Your State Board of Health has recently been enabled to place at the disposal of the physicians of New Jersey a laboratory devoted wholly to bacteriological work in the interests of public health. Each of you has received already a circular setting forth, in the main, the objects of this laboratory and the scope of the work undertaken there. I wish to go into the matter somewhat more fully, though briefly, taking this circular as a text, so to speak, and have thought it would be of interest to illustrate some of the methods pursued.

Diagnosis is, of course, the most essential feature of the work done, and the two great enemies of the race, tuberculosis and diphtheria, occupy a central position, being the most important diseases with which we have to deal. Pulmonary tuberculosis is the most common type of the disease, and early diagnosis is made by examination of the sputum. The diagnosis here is made entirely by staining methods, the best of which is, I think, the use of carbol-fuchsin as the stain, and acid alcohol for decoloriser. No counter stain should be

used in first examinations, as the deeply-stained bacilli in an uncolored field are much more easily detected than when the ground is stained also.

I have several times had sputum sent me after the use of some particular form of treatment, the object being to determine whether or not the number of bacilli had diminished. I do not consider it practicable to draw any prognostic indications from the number of bacilli in the sputum. The bacilli are unequally distributed through the sputum; the sputum is not homogeneous, and the quantity we can examine on a coverslip is very minute. Daily examinations for a considerable time might afford some indication of the progress of the disease, especially when the centrifugal machine is used. In all cases where bacilli can not be demonstrated readily, the centrifugal machine should be used. Bacilli in clusters indicate cavity formation.

Diphtheria.—The early diagnosis of diphtheria is of the utmost importance, and can be made with certainty only by bacteriological methods, which require from sixteen to twenty-four hours. Inoculation of animals is necessary only when we wish to determine virulence. In view of the increasing employment of antitoxic serum in the treatment of diphtheria, this early diagnosis is of especial importance, since many good authorities believe that it should be used only in those cases where the Klebs–Lœffler bacilius is present. It can certainly do no good except in such cases. The question of its use as a prophylactic in other members of the household, also depends on the bacteriological diagnosis. I take it for granted that every physician will take proper steps as to isolation in any case suspected of being diphtheria, pending the diagnosis.

Of equal, if not of greater importance, I consider the

secondary examinations made to determine when a patient ceases to be dangerous to others. I cannot impress too strongly that there is no fixed time for the diphtheria bacillus to disappear from the throat. The severity of the cases apparently has little to do with it; and a child with a mild case is capable of communicating fatal infection to its fellows. Roux and Yersin have found the Klebs-Lœffler bacillus in the throat six weeks after the membrane had disappeared, and Tobiena has seen similar cases. Biggs, Park and Beebe have found Klebs-Lœffler five weeks after loss of membrane and convalescence. It is often found two weeks or more after disappearance of the membrane, and I myself have found it sixteen days after. The bacillus not unfrequently lingers in the nose some time after it has disappeared from the throat, and a persistent nasal discharge should be regarded with suspicion, and examined bacteriologically. Let me repeat that a child is a distinct source of danger to its fellows, however well it may appear to be, as long as the diphtheria bacillus is lodged in any part of mouth or naso-pharynx, and only by bacteriological methods can it be determined when the organism has been gotten rid of. I lay special stress on this, as it seems to me that physicians are apt to consider the primary examination as of more importance than the secondary. Klebs-Lœffler bacillus is found also in throats of nurses, and others, who, while not showing signs of infection themselves, may convey disease to others.

Cholera.—I trust we will not have occasion to examine stools from a case of asiatic cholera, but we are prepared to do so if the emergency arises. A positive diagnosis can be made in most cases in from eighteen to twenty-two hours by bacteriological methods, and in no other way. The chief value of such diagnosis is, of course, in relation to quarantine, and commencing epidemics.

Typhoid Fever.—We have, unfortunately, no applicable method for the early diagnosis of this disease; nor, what is of more general interest, can we determine the source with any degree of certainty. This is one of the great stumbling-blocks of bacteriology. The bacillus of Eberth is universally conceded to be the offending organism, and drinking water the usual mode of infection. It would seem then an easy matter to say whether or not a given water supply was the source of the disease, but not so. You have noticed, some of you with surprise perhaps, that in the circular sent out by the Board of Health, on "Bacteriological Diagnosis," no mention is made of typhoid fever. The omission was intentional, for the reason that bacteriologists do not consider it possible, in the present state of our knowledge, to affirm positively, with any degree of uniformity or certainty, the presence or absence of the typhoid bacillus in a given water supply.

As this is a reproach to bacteriology in the minds of many, I will briefly give the reasons. Remembering the long incubation and prodromic periods of typhoid fever, and that a single case does not usually attract attention, it is generally from three to six weeks after the pollution probably took place before the water is examined. Compared to the organisms usually found in water, the typhoid bacillus is delicate and non-resistant; the conditions are not favorable to it, as to temperature and nutrition; and the common "water bacteria," as well as some of the higher water plants are probably antagonistic to it; besides which, we must remember "the effect of mechanical precipitation, and, of great importance, the disinfecting action of direct sunlight;" so it is not surprising if the typhoid bacillus has disappeared from the water by the time we are asked to examine it.

Perhaps the greatest obstacle in the search for the

typhoid bacillus is the constant presence of the colon bacillus in water which may have contained it. Many authors, among them Grinbert and Wurtz, say that it is almost impossible to separate the two organisms on the same plate, even when the culture has been made directly from the juice of the organs of typhoid patients. Wurtz says he has never been able to isolate the typhoid bacillus from the stools of patients, but only the colon. This he attributes to the unequal hold on life of the two, saying that the "colon multiplies vigorously where the typhoid barely exists." He thinks that the formation of ammonia by the colon bacillus in cultures, has much to do with this result. Many methods have been proposed to separate the two from drinking water, but none are reliable. The most recent is Elsner's differential method, hailing from Berlin. It has not been a success in my hands.

Diseases of Animals.—The most important of the contagious diseases of animals, especially as to its relation to man, is unquestionably tuberculosis. In tuberculin we have an almost infallible means of diagnosis, and the bacteriologist is not so often needed. In the tissues of dead animals, besides the histological lessons, it is not usually difficult to demonstrate the bacillus of tuberculosis by staining methods. The examination of milk I have already spoken of.

Anthrax is fortunately not the scourge in this country that it is in parts of Europe. The bacteriological diagnosis is easily made by culture of the bacillus, inoculation of mice or guinea-pigs, and examination of the tissues of dead animals.

Glanders is diagnosed by inoculation methods. The field mouse is the most susceptible animal, and should be used where possible. Usually we employ the male guinea-pig, after Straus's method, taking advantage of

the selective tendency of the glanders bacillus for the testicle; intra-peritoneal injection is practiced, and in a short time a suppurative orchitis is produced. In the use of Mallein we have a still more rapid means of diagnosis, especially in chronic and latent cases.

Hydrophobia is diagnosed by injection of the brain of the suspected animal, rubbed up in sterilized water, beneath the dura water, the rabbit being selected as the most susceptible animal. In this country, I believe, its chief use is in allaying the fears of those bitten by frightened animals, and to check the spread of newspaper hydrophobia.

Water.—The laboratory undertakes the examination of water supplies only when they are for public use. The qualitative analysis of water requires several months, and we can only undertake the quantitative analysis, which is of limited value, and should always be accompanied by a chemical analysis, and vice-versa. We are asked to examine waters on account of the suspected presence of the typhoid bacillus more, perhaps, than for any other reason. I have spoken of the difficulties attending the search for this organism. I consider it impracticable, with any degree of regularity or certainty, to detect its presence in water supplies; and always impossible to affirm its abscence. It is usually, however, not difficult to detect the presence of the colon bacillus, and other intestinal organisms, and by this means we can draw very valuable conclusions as to the fitness of a water for drinking purposes. The presence of these organisms indicates surely fecal contamination, either by man or the lower animals; usually the former, I think it safe to say. All water contaminated by feces is unfit for domestic use, and may always contain the evacuations of typhoid fever.

I have indicated briefly and imperfectly the design and

scope of the laboratory. Fearing to trespass too much on your time and patience, I have avoided discussion of theories and omitted details which have much interest, but are not essential; and have given, somewhat dogmatically, perhaps, what have appeared to me the salient facts. I trust that I have awakened an interest in the work of the laboratory, and that we may be of mutual benefit to each other.

ESSAY.

BY ARCHIBALD MERCER, A. M., M. D., OF NEWARK, N. J.

THE PROGRESS OF ABDOMINAL SURGERY, WITH ESPECIAL REFERENCE TO PENETRATING WOUNDS.*

A physician once said that he seldom, or never, attended a meeting of a medical society, that he did not listen to a paper or hear a discussion on some topic either that did not interest him or with which he was already familiar. This may be the fault with medical societies, but as our Society requires a paper to be read at each meeting, and the Committee on Essays has assigned the task to me for this evening, I must ask your indulgence if I present nothing which interests or informs, and suggest that you blame the rules and the Committee. I have chosen as the subject for our brief consideration, the advance in the Surgery of the Abdomen during the last twenty-five years, and especially that relating to penetrating wounds.

A few years ago, in an old country church-yard, I read the following epitaph on a tomb-stone: "In memory of Henry Liddell, son of Dr. William Liddell. Having endured with fortitude the most acute pain for three days, he, with becoming composure, desired and attended prayers, after which, with faltering voice, he affectionately delivered into his father's care, his loving wife and

* Read at the December, 1895, meeting of the Newark Medical and Surgical Society.

infant daughter. He died in the intensest agony of an Iliac Passion, vomiting black choler and excrement, on the 30th day of January, 1799, aged 23 years."

The inscription tells its own story, pathetic as it is, but it tells more, and probably the same thought comes to each of us—that the surgeon of to-day would have saved that life. And what language could more forcibly illustrate or emphasize the advance that Surgery has made since that day. Then, probably, no one thought of the use of the knife as a means of relief, while to-day, hundreds would stand ready and attempt to rescue the patient by an operation.

But it is not necessary to go back one hundred years to find records of death, due to disease or injury of the abdominal organs, where the surgeon never thought for a moment of resorting to an operation as the means of saving life. Many of us here to-night know of such cases in our own professional experience of less than twenty-five years.

Also, as exemplifying this point, the chapter on Wounds of the Abdomen, as contained in the "Surgical History of the War of the Rebellion," is most interesting, and, in its perusal, we cannot but be surprised in learning how little was done or attempted in abdominal surgery by army surgeons during that time. The field for such work was most fruitful, and we wonder that someone was not inspired by the opportunity to make such efforts that would have changed the deplorable record. The word deplorable is not used in the sense of reflecting discredit on the surgeons of the army, but in connection with the fearful mortality—due to the then accepted methods of treating such wounds.

In a total of nearly nine thousand reported cases of all sorts of wounds of the abdomen, the mortality was

one-half; and in nearly four thousand cases reported as penetrating wounds, ninety per cent. were fatal. The records show in a number of cases of gun-shot wounds of the intestines, with the intestines protruding, that enterorraphy was done and that many lives were saved, some with fecal fistulæ, or, perhaps, a false anus. But in a simple gun-shot wound of the abdomen, I find no record of a laparotomy having been done.

A most interesting case is reported by Prof. R. A. Kinloch, of South Carolina, in 1863, where he did a laparotomy for existing fecal fistulæ, resulting from a wound of the intestine. The operation, in brief, consisted of making an abdominal section, exsecting a part of the gut and in bringing the ends in opposition by means of silver wire suture, augmented by the Lembert suture, and the case eventually resulting in a complete recovery. I mention this report not to speak of the operation especially, but because of the concluding remarks of the surgeon, which show that at least one surgeon felt the desire and need of advance. He wrote as follows:

"It adds another instance of recovery after severe gun-shot wound of the small intestine."

"It is an argument against the almost universal practice of abandoning intestinal wounds to nature, rather than risk opening the peritoneal cavity."

"It must serve to encourage that hopefulness and boldness so essential in progressive surgery, and all times preferable to despair."

Nor are the concluding remarks of the author in his deductions at the end of the chapter less interesting. He says:

"In view of the invariable and, it would appear, necessary fatality of such cases, the question arises of

the propriety of abdominal incision for the removal of the extravesated matter and the practice of enterorraphy." Again, "The tendency of progressive surgery, as indicated by the undertakings for the removal of abdominal tumors and intestinal obstructions, as well as for the extraction of foreign bodies and for the treatment of wounded intestines, is in this direction, and it appears probable that laparotomy, if that be the correct general term for abdominal section, will henceforth be employed with increasing frequency, not only in the treatment of morbid growths, but in obstructions and wounds of the abdominal organs."

From the above quotations we may draw a fair conclusion of the position abdominal surgery held thirty years ago. Yet they show us conclusively that there was a beginning tendency towards progress and advance. It is stated that about seven per cent. of all the wounds treated during the war were of the abdomen, and when we consider the immensity of the number, we cannot but think how much might have been done, and how different would have been the results had others thought and worked with the two from whom we have quoted. I do not mean to insinuate that it is only the surgeon of to-day, or this decade, who has done good abdominal surgery, or that many brilliant operations and successful results were not obtained years ago. Zaccarelli, as early as 1549, for example, in Naples, removed the spleen successfully, for simple enlargement, and since McDowell's first ovariotomy, in 1809, thousands of lives have been saved, and to him, above all others, is due the credit of having given the impetus to abdominal work, which is so pregnant with brilliant results to-day. Then, again, it was in 1826, when Lembert introduced the stitch which bears his name and is now so universally used in the

operation of enterorraphy. However true all this is, but little was done and by few men, and the medical schools and text books of twenty years ago taught us to do practically nothing in such injuries as penetrating wounds. As showing the disposition on the part of surgeons to leave injuries, and perhaps diseases, of the abdomen to nature, or rather, to encourage the do-nothing plan, I well remember the cases which came under my own observation while House Surgeon at St. Barnabas' Hospital, later than the year 1875.

The first was a gun-shot wound of the abdomen. The members of the attending staff who saw him, among whom were three who had served as surgeons during the war, advised the then usual treatment of rest, opium and compresses. The man died in a few days, of course. Unfortunately, an autopsy was not obtained. The second case was a man who had been gored by a bull, tearing the abdominal parietes and allowing the intestines to protrude. The only treatment consisted of returning the bowel to the abdominal cavity, and this, with no special care as to cleanliness, and the verdict having been given that the man would die, a compress of carbolic acid solution was laid over the part, and the patient did not disappoint the expectation, as he died in two days of violent peritonitis. The third case was one of so-called inflammation of the bowels, which was accompanied by fever, vomiting and tympanitis, and which ending in death, suddenly, in three or four days. At the autopsy, which I made, was found a general peritonitis and a perforation of the appendix vermiformis.

These cases made a deep impression upon me, which I never forgot, and emphasized the utter futility of the mode of treatment which was then in vogue. Of course the cases ended fatally; it was said in the begin-

ning that they would, and they did. The reflection comes to us all now, how differently they would have been treated to-day, and, in all probability, all would have recovered. Soon, however, the opinions of men and their methods began to change; one surgeon followed the lead of another and success began to give encouragement, and it will, I think, readily be admitted, that in the whole domain of surgery, the advance in the Surgery of the Abdomen during the last quarter of a century has been the greatest, and the results unequalled. Men have lost their fear of invading the abdomen, lest they should incite a peritonitis. A wound or a disease of some of the viscera that was formerly looked upon as necessarily fatal, is now regarded as probably curable. Surgeons no longer regard the meninges of the brain with less fear than the peritoneum, and even the fear of the defendants' counsel has become a thing of the past.

Well do I remember my first laparotomy for a gunshot wound of the abdomen, in a homicidal case. It was undertaken with timidity, lest if the man should die, the lawyers would say, and prove to the average jury, that the knife, and not the bullet caused the death. It is a very pertinent question to ask, what has produced the change which exists to-day? Not alone the dissatisfaction with the do-nothing plan, nor the desire to do more to save human life, nor yet alone an increase in surgical skill. Back of all these considerations, men discovered that there was a reason why it was not fatal, or even dangerous, to open the abdomen, and the credit of the change was due to the practice and teachings and precepts of Sir Joseph Lister. This was the beginning of the new era, and surgeons found that cleanliness in surgery was more than they had ever dreamed of. Then the disciples of surgical cleanliness continued to

work and to preach, and the two great principles of surgery, antisepsis and asepsis, began to bear fruit, and above all, the grand cardinal point was recognized as being asepsis, and that absolute cleanliness was its synonym. And what results do we find? Far more than we can relate—almost more than we can contemplate.

Thousands of lives have been saved by the gynecologists in the immense field of the operations which come within the domain of their specialty. And we all know of the rescues from death by the operations, which are done every day, upon the various organs contained in the abdomen; of how a penetrating wound of the gut is sutured, or a portion of intestine exsected and the ends united; of the use of "Abbè's Rings," or "Senn's Plates," or "Murphy's Buttons." We all know of kidneys removed, or fastened in their proper place by a stitch; of the gall-bladder invaded for the removal of a stone; of stab or gun-shot wounds of the liver or spleen successfully reached, or of bleeding arteries of the mesentery secured; of sections and irrigation for peritonitis. We all know that the results which have followed these operations constitute the advance which the surgery of the abdomen has made in the last few years.

But even more has the experience of this later period taught us. We now fully appreciate the fact that the very injuries we formerly hesitated to operate upon, for fear of producing peritonitis, are of themselves quite certain to cause it. As some septic element is almost sure to enter the abdominal cavity with the bullet or knife, just as certainly may it be introduced there by the hands, or instruments, or suture of the operator. Sepsis almost means death; asepsis gives promise of recovery. And the prophetic words of Kinloch, and the

deductions quoted from the compiler of the "Surgical History of the War of the Rebellion," have been verified.

Having thus considered the subject in a general way, I now desire to call especial attention to the contemplation of a single point in abdominal surgery, and that is, penetrating wounds. I mean a consideration of those cases which show no definite symptoms—almost the only sign of an injury being a hole in the abdomen whether made by a bullet or a sharp cutting instrument It is in these cases, it seems to me, that the question of an immediate operation is yet far from settled—I might almost say, of operating at all. To probe the wound will possibly tell us whether or not the injury extends through the walls and into the abdominal cavity, but it certainly can tell us no more. In my own experience it did not even tell that, yet severe intra-peritoneal wounds existed. Delay, itself, in these cases, is often the cause of a fatal ending.

If, by the symptoms, we are unable to determine the severity of the injury, we must always bear in mind that the greatest risk is from sepsis, and that in six or eight hours a peritonitis may light up, which will prove fatal in a day or two. In cases where the fact of penetration is undoubted, the almost universal opinion of surgeons is to open the abdomen. We must regard the symptoms of hemorrhage as a valuable first aid in determining the necessity for operative help—as in cases of approaching collapse from this cause, an operation is undoubtedly indicated. We are still further guided in forming our opinion regarding hemorrhage, by the location of the injury, as in the vicinity of the spleen, liver or kidneys, all of which being vascular organs, give rise to excessive hemorrhage. In the class which we designate as of doubtful penetration, we find but little in the con-

dition, or from the examination of the patient, to guide us in determining the necessity for an operation, and yet we may have laceration of the intestine, and extravasation into the peritoneal cavity. There is no indication of hemorrhage; no constitutional disturbance; no approach to shock from sepsis, or toxæmia, as it has been called, as these symptoms may not occur until after the lapse of several hours. What are we to do in these cases? Our patient may be approaching the gravest peril while we are hesitating and doubting. The question is one of the greatest importance, and one of intensest interest to the surgeon, and is continually being discussed in societies and written about in journals. For one, I have, from experience, come to the conclusion that we should operate in all these doubtful cases, or knowingly take the risk which waiting involves. We wait for what—but the development of the very symptoms which we strive to prevent by an operation—symptoms which denote the invasion of inflammatory action from septic infection, due to intra-peritoneal lesion, with extravasation.

In the "Boston Medical and Surgical Journal," Monford has lately published a paper based on the reports of all cases, between forty and fifty in number, of penetrating wounds of the abdomen, occuring in the Massachusetts General Hospital, during the last twenty years. The report includes stab and gun-shot wounds of every variety. His deductions, after a careful analysis of the cases, are so interesting in themselves, but especially in relation to this vexed question of operation, that I beg to quote them here. He says he is convinced that in gun-shot and stab wounds of the abdomen, an exploratory operation is almost imperative in all cases, and that in doubtful cases we should operate—regarding an exploratory incision as the course of least danger. He

says a great majority of the cases of collapse had extravasation and no hemorrhage, and he regards this shock as really a complete systemic toxæmia. Also that, barring hemorrhage, early death is not from shock, but sepsis, because this is seen only where extravasation has taken place.

The conclusions of Scudder, of Boston, as published in the "Medico-Surgical Bulletin," from a study of fifty-six cases of penetrating wounds, are interesting and pertinent. He says: "Given an abdominal wound, proof of penetration should be sought, and this is best accomplished by enlarging and careful investigation of the original wound. Penetration having been found, the abdomen must be opened and the contents carefully examined for injury." He regards the use of the probe in determining penetration as often misleading. Again, he says: "The absence of shock does not prove the absence of grave intra-peritoneal lesions, and a small parietal wound is not incompatible with grave intra-peritoneal lesions."

Chabut, in a discussion on penetrating wounds, is quoted in the "Medical Week," as follows: "He regards it as the duty of the surgeon to have recourse to laparotomy if there is the slightest doubt as to the condition of the peritoneum. Also that the operation is imperative, not only when penetration is unquestioned, but also when there is the slightest suspicion of such a contingency."

I cannot refrain from quoting from the "Annals of Surgery," parts of a discussion on this subject, which took place at a meeting of the New York Surgical Society. Dr. Stimson reported two cases of gun-shot penetrating wounds of the abdomen, with several perforations of the intestines in each case, with entire

absence of acute symptoms, or symptoms of collapse, one man walking into the hospital and, with difficulty, being retained until an examination could be made.

Gerster reported a gun-shot wound of the abdomen, in which the patient showed no symptoms of shock, internal hemorrhage or escape of feces, yet when the abdomen was opened, three perforations of the intestines were found. McBurney advised an exploratory incision in these cases, and thought surgeons were too slow to resort to it. He regarded it most difficult to tell whether penetration of the peritoneum had taken place or not in small wounds, unless the probe passes readily through the abdominal parietes, and here he advises opening up the wound, beginning with the superficial layer, and thus opening tissue by tissue, and so, without danger to the patient, determining whether or not the abdominal cavity has been reached.

The following case, occuring in my own experience, illustrates so forcibly this uncertainty regarding the question of perforation in these cases, that I relate it briefly. A boy, seven years of age, was admitted to the City Hospital, with a gun-shot wound of the abdomen, inflicted by a playmate with a thirty-two calibre bullet. He was seen within an hour. There was no appearance of shock or of hemorrhage. He made no complaint of pain. His pulse was 86, and his temperature normal. The location of the wound was just above Poupart's ligament, one and a half inches below the anterior, sp. spinous process of the ileum. A probe passed into the wound inward, backward, and slightly downward, and stopped at the end of three inches. It revealed nothing. There was no sign of hemorrhage, nor of collapse. The boy said he had no pain, and there was all absence of constitutional disturbance. There was nothing to be

detected which seemed to indicate any mischief, except a slight pallor of the face and an expression of anxiety. At all events, it was determined to postpone an operaation for a time, but which I questioned the wisdom of. Early in the evening, the symptoms remained unchanged, except there was a quickening of the pulse, and the abdominal muscles on the side of the injury were more tense than on the other side. A laparotomy was immediately decided upon, and we found a slight intra-peritoneal hemorrhage, extravasation of feces, and that the bullet had penetrated the intestine five times. The hesitation to operate earlier was caused by the absence of any grave symptoms, and the doubt of penetration, and the delay, unnecessary as it was, nearly cost the boy his life, as there was already a beginning inflammatory action, with exudation of lymph, but happily, copious washing of the peritoneal cavity averted any further mischief, and the boy recovered.

I desire, very briefly, to refer to a case at St. Barnabas', in the service of Dr. Chandler, and which I saw in consultation. A child, under ten years of age, suffering from a gun-shot wound of the abdomen. The same question of doubt of penetration came up, because of a want of symptoms denoting it, and an operation was postponed until the next morning. Then evidence of intra-peritoneal injury existed, and a laparotomy revealed four perforations of the intestines and a beginning peritonitis.

Again, a case occurred lately at the City Hospital, in Dr. Hollister's service. A man, with a gun-shot wound of the abdomen, was admitted, and, no symptoms of penetration existing, it became a question whether the ball had passed through the parietes. An operation was postponed for some hours, and, when performed, a gen-

eral peritonitis, with excessive lymph exudation and four or five perforations of the bowel, were found. I know that the question of an immediate operation in these cases seems to be far from definitely settled. Why is such the case; why should we hesitate to acquaint ourselves of the true condition of the peritoneum? What should we make our guide—or what set of symptoms should be present or absent? In all my experience in this class of cases, whether occurring in my own practice or in the practice of others, I have never seen a gun-shot or stab wound of the abdomen, in connection with which there was not a wound of some of the contained viscera; hence, where an operation was necessary. And from such experience, I have become an earnest advocate for an exploratory incision in all cases, and, also, what I regard as a cardinal point, an early operation.

No surgeon would think of refraining from operating if he was certain of hemorrhage or visceral injury, and yet I think and urge that an operation is of equal importance in the class of cases we have regarded as doubtful. The question of doubt is, of itself, an exceedingly dangerous factor, and I urge an operation because of the doubt, and the great danger which lurks behind it. We should remember that a life is probably hanging upon our decision, and there is no time for temporizing or theorizing, but we should know beyond a peradventure, whether or not the peritoneal cavity has been invaded, and if so, whether any organ has been injured. To refrain from an operation must convey the impression that the surgeon is reasonably certain that the cavity has not been invaded, and this, in his opinion, removes the injury from the category of doubtful cases. To wait for the beginning of the symptoms which denote intra-

peritoneal injury, means to wait for the symptoms which risk the life of the patient. Surely, the risk of a laparotomy is not to be compared to the dangers from a general peritonitis from extravasation. Regarding the plan advocated and practiced by some, of following up the track of the wound and opening layer after layer, I have no experience, but am inclined to advocate the median exploratory incision because of the advantages which I know it does offer. I think the following may be reasonably deduced from what has been presented:

That penetrating wounds, as a class, may be subdivided into three groups: 1st. Where there can exist no doubt as to penetration of the peritoneum and a wound of some of the viscera, and where an operation is undeniably indicated. 2d. Where no doubt can exist as to penetration of the peritoneum, but the existence of visceral injury is uncertain, and where the expediency of an operation cannot be questioned. 3d. Where doubt exists even as to penetration of the parietes, but because of the doubt, experience tells us the patient is not safe, hence, an operation is advocated as being preferable to doubt.

ESSAY.

BY ALEXANDER MC ALISTER, M. D., OF CAMDEN, N. J.

IS THE THERAPY OF ANTITOXIN SERUM, NUCLEIN SOLUTION AND THYROID EXTRACTS SO FULLY ESTABLISHED AS TO RECEIVE THE ENDORSEMENT OF THE PROFESSION?

In opening this subject for discussion, I shall devote the most of my remarks to antitoxin serum, as I regard this as the most important of all the animal extracts at the present time, and the one with which I have had the most experience. I am but a novice in their clinical application and results, and do not claim any special originality for the thought or material facts I am about to discuss with you.

The bacillus of diphtheria was discovered by Klebs in 1883; cultures were made of it in the following year by Lœffler, but the cultures did not produce all the symptoms of diphtheria. In 1887-1888 experiments were made by Roux and Yersin, of Paris, which fully demonstrated that the bacillus of Klebs was the true cause of diphtheria. Behring, with Frankel and Kitasato, then discovered the antitoxin, and undertook the vaccination against this disease. This work was continued and perfected by Roux, with Martin and Chaillon, in Paris. To Koch must be given the honor of laying the foundation of the discovery of antitoxin of diphtheria, by his inves-

tigations of the bacillus of tubercle and of cholera. The isolation of the diphtheria bacillus and its culture, was the work of Lœffler, his student.

Lœffler, Roux, Yersin and Martin, further investigating the disease, proved that it is not the mere presence of the bacillus that gives rise to all the symptoms of diphtheria, but the products of this micro-organism, viz.: the ptomaines produced by it. Roux and Yersin fully proved this by separating the bacillus from the ptomaines, and subjecting the former to chemical and physiological experiments. They showed that diphtheria is a toxæmia which differs from others, in that the toxin acts as a ferment, and that when it is injected into living tissues there results a production of certain albuminoid bodies. Martin isolated these albuminous substances, and, subjecting them to alcohol, produced a proto and dextro-albumose. He injected rabbits with this, causing symptoms analogous to those of diphtheria.

Brieger, Franklin, Proskauer and Wasserman have carefully studied the chemistry of the subject. The two former have obtained a white, amorphous powder, giving the reactions of albumen, by repeated precipitation of the culture bouillon, by means of alcohol and acetic acid. The toxins, as well as the immunizing antitoxins, have been shown by Buchner to be, in all probability, the special products of bacterial organisms. Further experiments were made by Roux, Brieger, Frankel and Behring in this direction. It was shown by Brieger and Frankel that a three weeks old culture of diphtheria bacilli, which had been heated up to 70° C., for one hour, when injected into rabbits, protected these animals against the virulent diphtheritic poison. Behring discovered several ways of immunizing animals. One method was to inject an animal with diphtheria bacilli and then inject tri-chloriodine.

Agents that render individuals immune against infectious diseases are believed to act either by destroying the living cause of the disease, or by retarding the growth of this agent, or by rendering innocuous the poisons developed by the germ in the innoculated subject, thereby imparting to the victim a higher resisting power to the action of the poisonous material.

To Behring is due the credit of having discovered, that by injecting the serum of the blood of animals, rendered immune to certain bacteria, into other animals, the latter will also be rendered immune to the same bacteria; and that not only does this injection protect against the living bacteria, but also against the toxins developed by the germs. This process of immunizing individuals against disease is to be carefully distinguished from that process—such as Jenner's for small-pox, and Pasteur's for hydrophobia and anthrax—which depends upon establishing in the individual attenuated bacteria cultures, and results in producing a milder form of the disease, which is dreaded.

In the preparation of the antitoxin serum for diphtheria, the principles laid down by Behring have been followed by Roux and all others who are now furnishing serums. Roux's method of obtaining the antitoxin serum is used in Philadelphia at present; it consists in introducing continuous and progressive doses of powerful toxin into a non-susceptible animal, as the horse, by which means the animal becomes saturated with an antitoxin produced in the system by the stimulated cells of its tissues and blood. There is some variation in the strength of the antitoxin serum derived from different horses, and from different laboratories, hence the disappointments, in some cases, following the injection of the serum into human subjects affected with diphtheria.

The method of obtaining toxin fluid for injection into the animal, which subsequently produces the antitoxin serum, was much improved by Fernbach's method, which consists in allowing air to circulate over the culture-bouillon; this is accomplished by using the Fernbach's flasks. Fernbach discovered that the liberation of metabolic products of micro-organisms corresponds to the degree of their vegetation, and is at its greatest height when the organisms are multiplying and decaying with great rapidity, the death of each bacillus liberating the ptomaines. The current of air also removes the effluvium from the decomposition.

Erlich, Kossel and Wasserman have obtained an immunizing serum from the blood of the goat, which has been used in some Berlin hospitals with apparently good results.

Aronson claimed to have prepared a serum by special methods, which was 50% stronger than Behring's serum, but his claims have been disputed by Behring and Boer. The serum No. 3, prepared at Höchst, Germany, is the strongest yet produced. The No. 1 serum, prepared at the same place, has about 50 times the strength of Behring's normal serum.

Too much attention cannot be given to the preservative used in protecting antitoxin serum. Carbolic acid, which is extensively used by the German manufacturers of antitoxin, is a toxic and dangerous remedy, and is highly irritating to the kidneys and urethral tracts, through which it can only be eliminated; serums preserved with carbolic acid also give rise to greatest irritations at the point of injections. The carbolic acid is also objectionable on account of its rapid action in coagulating albumen, and in those sudden cases of death, resulting from injections of antitoxin, it is, to my mind, probable, that death might have been due to this cause.

Formalin, on account of its non-toxic and strong protective power, would be an ideal preservative, except for the fact that it coagulates or jellifies the serum after standing for a length of time.

Camphor is an uncertain antiseptic, having but feeble power, and is objectionable for the reason that it disguises, by its own strong odor, the signs of decomposition and putrefaction, which would easily manifest themselves by their odor.

The best germicide and preservative is, by all means, tri-kresol. It is a very feebly toxic agent—as much as ten grammes (150 grains) having been injected into a guinea pig, without unfavorable symptoms; is without any irritating action on the kidneys, and has but a very feeble action in coagulating albumen.

When you consider that of carbolic acid, in administering a large dose of antitoxin, as much as 20 grains may be administered into a feeble child, stricken unto death with the toxins of diphtheria, it is important that great care be exercised in not injecting a depressant or any irritant to the already diseased and over-taxed kidneys.

To Lœffler, possibly, belongs the credit of being the first one who rendered an animal immune to the virus of diphtheria. The value of the work performed by the original investigators into the nature and treatment of diphtheria, is incalculable, even should the results of the antitoxin treatment be not as brilliant as were hoped for by them. They have opened up new paths to new fields of scientific investigation which give promise of rich harvests.

The consensus of medical opinion is tending to be favorable to antitoxin treatment, and nearly every day records new converts to it. That this method of treatment has met with opposition and set-backs, is not to be

wondered at, when we consider the histories of past innovations in all branches of science.

There are four main obstacles to medical innovations, such as the one under consideration: one is, too sanguine an expectation of great results; another, a want of a proper understanding of the limitation of the new discovery, as, for instance, where a physician gives the antitoxin injection to a diphtheritic case and is disappointed because the patient dies of a nephritis or a pneumonia; another, ignorance—and we will all allow that there are not a few who graduate in medicine who should never have entered into the profession; and still another, the unfortunate prejudice and professional jealousy of some physicians towards another, who has introduced into a community or locality, a new method of treatment.

Since January 4th, 1895, I have treated forty-five cases of diphtheria with antitoxin serum. Twenty-five of the above cases, I reported, in detail, before a meeting of the District Medical Society of the County of Camden, February 12th, 1895. Eighteen of the cases occurred in the West Jersey Orphanage for Colored Children, at Camden, all of which recovered. The other cases, I treated in my private practice.

Diagnosis was confirmed by culture in all but eight of of these cases. Four of these were in the family of a physician; one died of laryngeal diphtheria, proving to my mind that they were all undoubted cases of diphtheria. The other four cases also occurred in one family, and one of these children had marked laryngeal symptoms; all recovered. Of the above forty-five cases, seventeen were laryngeal, twenty-eight faucial and nasal, six adults, 39 children, ages varying from seventeen months to thirteen years. Most of the cases were injected within forty-eight hours after diagnosis was made,

excepting two of the laryngeal cases—one in seventy-two, the other in seventy-eight hours. In only five of the cases was it necessary to repeat the injection the second time, and in one, only, a third time—a patient in whom the membrane was present for six days. In the twenty-five cases reported, I used twenty-five C. C. of the New York serum, for the first injection, and fifteen C. C. of this serum where I repeated it. In the last twenty cases I used Mulford's serum, twenty C. C., at each injection, and, where repeated, half the quantity was used.

A word in regard to serum; I believe the serum produced in this country is equal in value to any that is made abroad. In all cases in which I used Mulford's antitoxin, the results were successful. No local reaction followed the injection of antitoxin. A general reaction occurred in some of the cases, a rise of one or two degrees in temperature; the pulse became somewhat accelerated. In the mild cases, improvement was noticed in ten hours; in the others, in from twenty-four to thirty-six hours; the membrane changes in color and becames detached. I had a small abscess to follow in one case, containing about one drachm of pus; it was incised and healed rapidly. Erythema followed, in the majority of my cases, in from eight to ten days after injection. In one case it persisted for about two weeks.

The internal treatment was Mistura Bashami strychnia and stimulants. Locally, hydro-zone boric acid solution and Lœffler's solution. This last solution was used in only three cases. Albumen was present in the urine in the majority of the cases, which cleared up as convalescence progressed. Post-diphtheritic paralysis followed, to a mild degree, in eleven of the cases; all have recovered. Where paralysis does occur,

the results are more favorable where antitoxin is used. Broncho-pneumonia occurred in four cases. This makes a total of forty-five cases treated with antitoxin serum. Out of this number, three died—one of paralysis of heart; another with complications from abortion and rheumatism; the third, of sepsis.

With regard to the question whether the diphtheria antitoxin reduces the mortality from diphtheria, I think those who have followed the subject carefully can arrive at only one conclusion—that beyond any doubt the mortality is reduced. I will say, however, that all the statistics that have thus far come to my knowledge have invariably shown a reduced mortality with antitoxin, as compared with other cases treated without it. Of course, the diphtheria antitoxin is not a specific treatment in the same way that vaccination is against small-pox. It does not destroy the bacillus of diphtheria, but it checks the course of the disease. The mere presence of Klebs-Lœffler bacillus in the nose or throat does not constitute a case of diphtheria, and it should not be classed as such. It requires other symptoms of diphtheria, such as fever and sore throat, presence of membrane, etc.

With regard to the value of this method of treatment of diphtheria, I can only say that my faith in it is such from my own personal experience, that if I were called to treat a case and could not obtain the antitoxin, I would have the greatest fears for the safety of my patient; for then I would have to contemplate what was before the sufferer—the days and nights of ceaseless vigil and work, and then the result always doubtful. How different where antitoxin is used—the duration of the disease is shortened; how quickly relief is obtained, and what gratifying results. I have immunized twenty-one cases; two of these patients afterwards had a mild attack of

diphtheria. Where immunization is practiced it takes away the dread of the disease from those in attendance, and the relief to the minds of such individuals cannot be estimated. When intubation is practiced the tube can be withdrawn in much shorter time than without this treatment, and we can almost speak with certainty of the day when this is to be done. In all cases of laryngeal diphtheria, antitoxin is specifically indicated, and its marvelous value can here be proven beyond any doubt. In a communication which I recently received from Dr. L. Emmett Holt, of New York, he says, "the evidence to my mind is simply overwhelming in favor of its use."

Pharyngeal cases may be doubtful evidence, but such results in laryngeal diphtheria are, to my mind, conclusive. I have been given permission to quote the following statistics: Of 5,794 cases treated in private practice, 713 deaths, 12.3% mortality; or, excluding 218 cases moribund at the time of injection or dying within twenty-four hours, the mortality was 8.8%. Injected during the first three days, 4,120 cases, 303 deaths, 7.3%; excluding moribund cases, 4.8%. Of 1,448 cases injected on or after the fourth day, 27%, showing but little influence of antitoxin. Diagnosis was confirmed by culture in over two-thirds of the entire number of cases. In 1,256 laryngeal cases, 691 not operated upon; of these, 563 recovered, 80 died from other causes, and 48 from laryngeal stenosis. Of 565 cases operated upon, intubation in 533, with mortality of 25.9%; tracheotomy in 32, with mortality of 37.4%. The results of intubation of men reporting ten operations or over, 280 cases, mortality 23 2%. The cases were drawn from the experience of 615 physicians, of whom over 600 have pronounced themselves strongly in favor of the serum treatment.—[*American Journal, Med. Sciences*, May, 1895.]

Kuntzer, (*Deutsche Medicinsche Wochenschrift*, 1894, No. 49,) in reporting the results of the use of Behring's antitoxin in diphtheria, emphasizes some things worthy of general attention. In the first place he criticises the custom of classifying cases as mild, moderately severe, and severe, since the prognosis often varies from hour to hour. Behring and his collaborators laid special stress on the value of the serum in cases treated early; and in the report on 220 cases by Erlich, Kossel and Wasserman, the latter classified their cases according to the day of the disease on which the treatment was begun, showing that the death-rate, which was 0 in cases treated on the first day, increased from 3% on the second to 14, 23. 43, 50, etc. If future results are published in this way, the value of the remedy can be more definitely determined. Kuntzer himself treated twenty-five cases and lost only three; five required tracheotomy, and of these, two died. Kuntzer followed Behring's method of treatment, giving 600 immunizing units to children on the first or second day of the disease; to children coming under treatment later, or adults, twice that dose.

Kitasato, in his work in 1895 on sero-therapy, has published a detailed report of 353 cases treated at the institute, with the serum prepared under his supervision. The rate of mortality may be learned from the following: Kitasato has collected from reliable sources 26,521 cases of diphtheria in Japan, previous to sero-therapy, with 14,906 deaths, (56%); while of 353 cases treated there from November, 1894, to November 25, 1895, there were only 31 deaths, (8.78%). There is reason to believe that the mortality can be lowered if the treatment could be commenced early in the course of the disease. Thus, of 110 cases in which injections were made within forty-eight hours after the invasion, all recovered. On the

other hand, of 33 cases treated after the eighth day of the disease, 11 were lost. Some of the patients were received in a moribund condition; 6 children died within five hours after admission, 6 more within ten hours; altogether, 21 cases (two-thirds of the total mortality) were lost in the first twenty-four hours. Microscopic, as well as culture examinations, were made. The report only deals with those cases in which Lœffler's bacilli were demonstrated to be present.

The report of the Metropolitan Asylum Board, of London, on the results from the use of antitoxin in diphtheria, shows that during the year 1895 there were 3,529 cases of diphtheria treated in these six Metropolitan asylum hospitals, of which 796, or 22.5%, proved fatal; in 1894 the number of cases treated was 3,042 and the deaths 902, showing a mortality equal to 29.6%. Thus the proportional case—mortality was 7.1% lower in 1895 than in 1894.

This marked decline in the mortality of hospital-treated cases of diphtheria in 1895, considering that the average severity of the cases was "about equal" in the two years, has been ascribed by the medical superintendents to the antitoxin treatment in nearly 62% of the cases in 1895.

The unanimous testimony of all the reporters has been that this method of treatment has had a marked influence in mitigating the severity of the disease, and the degree of benefit has been found proportionate, as in all the series of cases reported, to the promptness with which the remedy was applied. Extension of the disease to the larynx after admission occurred in a much smaller proportion of cases in 1895. The mortality of tracheotomized cases in 1894 was 70.4%; in 1895, 49.4%. This marked improvement in the tracheotomized cases, as the

Lancet says, cannot be ascribed to any accidental circumstances. Although the percentage of albuminuria and nephritis has been somewhat greater under the antitoxin treatment, it is only just to consider that, (1), a more efficacious treatment by tiding the patient over a severe illness would, other things being equal, necessarily tend to cause an increase in the number of cases presenting complications, since a large number of patients who had suffered from the severe attacks would survive; (2), that there is some evidence that there was in 1895 a greater tendency to complications than in 1894, since among the cases in 1895, not treated with antitoxin, there was a larger percentage of complications, especially of albuminuria and paralysis; (3), that clinical observation may have been, and probably was, more minute in 1895.

The statistics show a percentage of 40.9 of albuminuria in 1895, against 24.1 in 1894, 23.2% of paralysis in 1895, as against 13.2% in 1894. A rash followed the use of the remedy in 45.9% of the cases. The report ends with the following statement, signed by the six medical superintendents: "We are of the opinion that in antitoxin serum we possess a remedy of distinctly greater value in the treatment of diphtheria than any other with which we are acquainted."

Mortality of Diphtheria, as Treated With and Without Antitoxin.

AMERICAN.

		Without Antitoxin.	With Antitoxin.
1.	Boston, Mass	40%	11%
2.	Detroit, Mich.....	40	11
3.	Chicago, Ill.....	53	9
4.	Hoboken, N. J.....	34.8	10.94

		Without Antitoxin.	With Antitoxin.
5.	Kansas City, Mo.....	40	11
6.	Milwaukee, Wis.....	43	9.6
7.	Minneapolis, Minn.....	48	10
8.	Montreal Gen. Hospital...	103 cases, 10 deaths.	10.3
9.	Newark, N. J.....	42%	16.4
10.	New York.....	50	11
11.	St. Louis, Mo.....	60	4.6
12.	St. Paul, Minn.....	45	12

FOREIGN.

		Without Antitoxin.	With Antitoxin.
13.	Berlin, Germany.	39.9%	13.2%
14.	Budapest, Hungary.....	62.5	14.2
15.	Cracow, Russia Poland. ..	56.3	22
16.	Glasgow, Scotland.....	38.3	14
17.	Japan (Kitasato).....	56.54	8.78
18.	London, England.....	64	17.64
19.	Moscow, Russia.....	40	10.5
20.	Paris, France	60	12
21.	Republic France	Reduction in mortality.	65.6

There have been upwards of a million injections of antitoxin, and in but five cases was death attributed to serum, and in these no positive conviction could be assigned.

22. REDUCED PERIOD OF INTUBATION BY THE SERUM TREATMENT OF LARYNGEAL DIPHTHERIA.

European Observers.	
Bokai.....	18 hours.
Von Ranke.....	25½ "
Huebner.....	63 "

American Observers.	
O'Dwyer.....	67 hours.
Fischer....	68 1/10 "
Rosenthal...	71 1/6 "

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With nuclein and thyroid extracts my experience has been very limited. I am but a novice in the clinical application and results of these extracts, but I will try to give you some facts concerning these subjects. The

treatment of disease, morbid conditions, etc., by means of culture fluids—the antitoxines, toxines and the nucleins, in other words, sero or serum-therapy—is a new departure, comparatively, in practical medicine. The nucleins have very recently been contributed from biology, by the well-known scientist and bacteriologist, Dr. Victor C. Vaughn. In advocating the acceptance and clinical use of the nucleins when the entire field of serotherapeusis has presented much scope for contest and controversy and for incessant research; when new discoveries are being almost daily brought out by eminent scientists from all learned countries. The field of application is so broad and extensive, and the varied indications for their utility are so numerous, as to make the study of their relative position in the broader field of serumtherapy somewhat difficult.

Drs. Vaughn and McClintock have demonstrated beyond a doubt, as being within the lines of true science, within the confines of truth, that the stated effects of the nucleins can be clinically relied on. Under the dictum of such masters the medical world has not been slow to accept them as true remedial claimants. It has been long known that the blood possessed germicidal properties; Vaughn, believing that the nucleins alone, singly or unaided, possessed this power, conducted a vast number of experiments upon the guinea-pig and other animals, using specially prepared solutions, obtained from yeast, and the lymphoid tissues or glands of animals. The basis of his theory was that this germicidal power of the blood resided alone, or almost entirely so, in the nucleins—the true proteids; the nuclein itself residing in the white or polynuclear blood corpuscles. With the aid of Dr. McClintock, he has successfully developed his theory, subjecting it to numberless delicate tests upon animals, and

to the more crucial clinical tests for the prevention, amelioration or cure of varied diseases and diseased conditions, his work covering now a period of two years. He claims from his careful, critical, scientific work, favorable results, and has given out, during this period of time, two reports to the profession, his usual carefulness and reserve marking both reports. In the first report he gives the origin, source, history, evolution, development and manner of administration, recommending its careful, discriminate use in man in a limited number of diseases, reserving a definite approval for a second report after another year of trial.

His endorsement in this last report is couched in very moderate terms, to wit: "That the result of his second year's trial of the nuclein solutions encourages him to continue their use." I think the profession, after such endorsement as this, can accept the nucleins as true remedies of special efficacy. Further developments by Vaughn and others of even repute, may succeed in establishing the nuclein as the key to immunization and prophylaxis, and as the biological disease-resistent force. I feel sure the nucleins have come to stay, while we must accept and acknowlege sero-therapy as a part of general therapeusis. No doubt we all feel that some good result —some great victory over disease and morbid conditions —will come of sero-therapy. Many of our ablest clinicians are utilizing the nuclein preparations, and their reports are all more or less favorable. Sero-therapy is already an established art in medicine, and occupies a big space in general therapeusis. The nuclein solutions are used internally and locally; they are chiefly used hypodermically, the minimun dose to begin with being ten minims, increasing five minims daily until the maximum dose, thirty to eighty minims, is reached, a dose of

eighty minims being found sufficiently large, ordinarily. The leucocytosic effect of this dose will arouse the resistant forces to probably the fullest effect. For the smaller quantities—ten to twenty-five minims—an ordinary pocket hypodermic syringe will answer, but when using the maximum dose, a syringe capable of holding that amount should always be used.

The doses should be given daily, increasing five minims each day. In delicate or extremely nervous patients, you may have symptoms of shock, fainting, etc., following even so small a procedure as the puncture of a surface with a hypodermic needle point. Such patients should be given a stimulant beforehand. Sometimes a slight erysipelatous rash is produced; it is of small moment, usually passing away in a few hours. A certain numbness and dizziness may also follow, but are likewise transitory. The originator claims that an elevation of temperature always follows its use, coming on in about three hours. Persistent thoroughness in aseptic detail, and continued injections, are the prerequisites to the successful use of this remedy. The leucocytosic effect will generally last about fourteen hours. Vaughn and others claim it to be specially serviceable and curative in tonsilitis, chronic indolent ulcers, incipient phthisis, or tuberculosis, malaria, diphtheria, bronchial affections, pneumonia, influenza, anemia, chlorosis, typhoid fever, and also report its favorable effects in a great number of diseases. The combined power of nuclein, of supplying building material, and of arresting and overwhelming disease germs that enter the blood, has made it more generally applicable than the antitoxines.

Thyroid extract has been used in many diseases associated with or resulting from deficiency of the thyroid secretions—cretinism, congenital goitre, atrophy of the

thyroid gland in childhood, (semi-cretins). Goitrous degeneration causes symptoms in proportion to the amount of the thyroid gland destroyed. The use of the thyroid gland as a medicament, was naturally suggested by the ascertained pathology of myxœdema, and the relation of myxœdema to goitre doubtless suggested its use in the latter. I speak of their use in myxœdema because this is the first disease in which they were considered of benefit, though I have had no experience with that affection. They are used in obesity because reports show that they sometimes have a good deal of influence upon the weight. The medicinal use of the thyroid gland in the treatment of goitre, and in the enlargement of the thyroid, or what is known as Graves' disease or exopthalmic goitre, has been followed, in some instances, by marked improvement. Cases of goitre are reported where full doses of the thyroid extract has been followed by a most remarkable diminution in the size of the diseased gland. Improvement or cure may confidently be expected in 76% of the cases, but sufficient time has not yet elapsed to determine what the final results will be. Cystic growths in the thyroid gland are not probably influenced by this remedy. Clinical experience has not yet demonstrated that this remedy is of value in other diseases, but its effect in diminishing the size, even of a very firm and hard enlargement of the thyroid gland, would certainly justify experimentation in other directions.

I think it is the duty of every physician, judging from the experience of myself and others, when called to a case of diphtheria, where it presents its clinical aspect, to use antitoxin serum, even before he receives the result of the biological examination, for success lies in using it early in the disease.

The sum of evidence has for a long time favored the theraputic use of antitoxines, and they have done much toward ameliorating infectious or germ diseases, and lessening the mortality rates therefrom. The nucleins have gained prestige even as rapidly, and their wide applicability brings them more prominently to the front, while the present trend—experimentation and clinical management of the germ diseases, is in the direction of this line of sero-therapeusis.

ESSAY.

BY FLOY MC EWEN, M. D., NEWARK, N. J.

CHLOROFORM NARCOSIS.

A full discussion of Chloroform Narcosis would necessitate the consideration of the following headings: 1. Chloroform—its indications and contra-indications. 2. Its characters. 3. Its composition and properties. 4. Its impurities and tests. 5. Its relative danger. 6. Inhalers and accessories. 7. Preparation of the patient and preliminaries to be attended to before commencing anæsthesia. 8. The administration of chloroform. 9. Phenomena observed during the administration of. 10. Care of the patient during anæsthesia. 11. Complications and their treatment. 12. After-treatment. 13. Considerations on anæsthesia in general. 14. Mixed anæsthesia. 15. Antiseptic therapeutics. 16. The use of chloroform in children. 17. The use of chloroform in obstetrics. 18. Medico-legal aspects of. 19. Lesions observed after death from.

For practical purposes we may confine ourselves to the consideration of three of these: (*a*) The indications for the use of chloroform; (*b*) The preparation of the patient for general anæsthesia; (*c*) The manner of exhibiting chloroform by inhalation.

The administration of chloroform by inhalation imposes upon the operating surgeon and the anæsthetist, the gravest responsibility. Its dangers begin with the first inhalation and do not end until the patient is wholly from under its influence. A person under the influence of chloroform vapor is a source of anxiety from begin-

ning to end; nor, indeed, does its danger cease with the withdrawal of the drug. It is a matter of common observation that a patient may be removed from the operating table in apparently good condition, and word be brought from the ward a few minutes later, that the patient is either dying or is dead.

In the light of statistics, and of competent surgical experience, it must be conceded that the administration of chloroform is wholly unjustifiable, except in the light of some special consideration, or where the exhibition of ether would jeopardize either the life or health of the patient.

Confining ourselves to the consideration of those cases in which the exhibition of nitrous oxide gas, or of local anæsthesia, would be inexpedient, it must be admitted that cases will, from time to time, present themselves, in which ether is either contra-indicated, or cannot be obtained, and it then becomes a matter of no small importance, how chloroform shall be administered with the minimum amount of risk and the minimum amount of danger.

The conditions in which chloroform may be considered to be safer than, and, therefore, preferable to, ether, are as follows:

(*a*) Chronic endarteritis occurring in those advanced in years.

(*b*) Chronic inflammatory affections of the respiratory tract, and advanced pulmonary disease. Of course, acute catarrhal affections of the respiratory tract are equally forbidding to the use of ether, but a patient suffering from such an acute inflammation should, unless delay were hazardous, be cured of his catarrhal condition before being subjected to any operative interference requiring a general anæsthetic.

(*c*) Renal disease, acute or chronic.

(*d*) Where there is a history of ether having been taken badly at some former operation.

(*e*) Chronic alcoholism.

(*f*) Those cases in which the galvanic cautery is used in the neighborhood of the mouth and air passages.

(*g*) Cerebral tumors or abscesses.

(*h*) In old age.

(*i*) In puerperal eclampsia where an immediate effect is required.

(*j*) Night operations with artificial light.

(*k*) During labor; while the following conditions are to be looked upon as peculiarly unsuited for its administration, if not, indeed, prohibited:

(*a*) Surgical shock.

(*b*) Epilepsy.

(*c*) Spina bifida and hydrocephalus (Morton).

(*d*) Those having a tendency to syncope.

(*e*) Organic heart disease.

(*f*) Poisoned condition of the blood.

(*g*) Acute alcoholism; delirium tremens (Sansom).

(*h*) It is unsafe to give chloroform to a patient already under the influence of chloral, whether in obstetrical practice or otherwise.

PREPARATION OF THE PATIENT AND PRELIMINARIES TO BE ATTENDED TO BEFORE COMMENCING ANÆSTHESIA.

In all grave surgical procedures, the thing to be feared most is shock. It is important, then, that the strength of the patient be conserved in every possible way. The dread and alarm which all experience, who are about to undergo an operation, should be allayed. In every case where it is possible, the anæthetist should make it a point to quietly talk with his patient a day or two

before the operation, gain his confidence, get in a good word for the skill of the attending surgeon, and in every way inspire him with confidence, as to the favorable outcome of the operation, for whatever may be feared or told to the other members of the family, nothing but hopeful success should be held out to the patient himself. If this rule were more generally followed, it would be found that the stage of excitement would be frequently avoided, and the shock to the patient materially diminished. Too often, in private practice, the anæsthetist is brought in by the attending surgeon at the very last moment, so that the above suggestions cannot be fully carried out, but a great deal may be done, even at this late date, by the exercise of ordinary gentleness and tact.

Nor is surgical shock our only concern. Psychical shock is to be prevented in every way. There must be no instruments in sight, no rough handling of the patient, no loud talking within his hearing, no feverish haste to bowl the patient over. Everything should be done decently and in order. Slocum ("Philadelphia Polyclinic," December, 1892), strikes the key-note of this thing in a masterly way. "We should give our patients every legitimate assurance of success, strengthen their confidence, allay their fears. If they hold to strong, odd fancies, yield to them as far as their safety permits. Reason with caprices, but treat superstition with respect. Many patients look forward with terror to an operation on Friday; when this is the case, change the date. To know the bias of a patient's mind, and to allay his apprehension is a long step toward preventing shock."

Wherever possible, the operation should be performed in the forenoon. The advantages of this practice are many:

(*a*) It saves the patient several hours of anxiety and nervous apprehension.

(*b*) It avoids the long fast which must otherwise ensue..

(*c*) There is a life and buoyancy about the morning hours that best fit the patient to resist the depression that so frequently attends operative interference and general anæsthesia.

The surgeon of fine feeling will anæsthetize his patient in his ordinary dress, and change to his operating gown after narcosis has been induced, and thus avoid exciting needless alarm. The case having been decided upon, as one for the use of chloroform, the patient is to receive a dose of some mild laxative medicine the night before the day set for the operation. Hypercatharsis is unnecessary; is prejudicial to the best interests of the patient, and is to be avoided. Indeed, if the bowels are regular, an injection on the morning of the appointed day, may often be found all that is necessary.

The urine is to be examined in all cases where this is possible. Urine that is over twenty-four hours old cannot be relied upon for clinical purposes. In examining urine, we ascertain the specific gravity and test for the presence of albumen and sugar. As it is not unusual to find sugar in perfectly normal urine, shortly after a meal, the best urine for an examination is that passed in the morning, the first thing after rising. As albumen is found in all catarrhal affections of the genito-urinary tract, attended with the production of pus, the chemical examination should be supplemented by a microscopical examination for casts. The presence of sugar contra-indicates any operative interference.

Grave renal disease adds to the dangers of the anæsthetic. The lungs and heart are to be exam-

ined in all cases as a matter of routine. If the heart is found sound, the fact should be turned to the patient's advantage. Shock, extreme weakness, or the presence of organic cardiac disease calls for the substitution of ether at once. Enquiries are next made as to the presence of foreign bodies in the mouth—false teeth, dental regulating plates, tobacco. These are to be removed if found. In children we look for loose temporary teeth, so as to be on our guard in case the use of tongue forceps becomes necessary. Any rough handling might very well dislodge one of the teeth and cause choking. The principal meal immediately preceding the operation should be omitted, but three hours before the time set, the patient should receive a large cup of strong beef tea. To carry a patient into the operating room, exhausted by a long fast, is needless, inconsiderate and contrary to all principles of practice. Children especially bear badly the deprivation of food.

Mental emotions have a marked influence on digestion. The ingestion of food while laboring under strong emotional excitement is apt to lead to the gravest disorders of stomach digestion. The common practice of giving milk and milk punches shortly before an operation is to be condemned. Anxiety is present in almost every case. As a result, the functions of the stomach cease entirely, and food of every description requiring stomach digestion is contra-indicated. Milk is a food, requires digestion and is to be placed among the prohibitive articles. Nothing is to be allowed but beef tea, beef juice, coffee or sherry.

It is a matter of routine with many operators to precede the administration of the anæsthetic with a hypodermic injection of morphine, gr. $\frac{1}{8}$, and atropia, gr. $\frac{1}{150}$. The advantages claimed are that the resulting unconsci-

ousness is more regular and of longer duration, although much less anæsthetic is required—that it lessens the initial excitement, diminishes the nausea, limits the amount of anæsthetic, and hence the chances of poisoning. More lately ("Gazette Medicale de Paris," Oct. 13, 1894,) M. Paul Langlois and M. G. Maurange have urged the claims of morphine hydrochlorate, gr. $\frac{1}{8}$, and neutral sulphate of sparteine, gr. $\frac{1}{4}$. The exhibition of this combination in 148 operations gave flattering results, the anæsthetization closing without accident and without cardiac disorder. On the other hand, it is not uncommon for many practitioners to begin anæsthetization without any preparatory medical treatment. Should these drugs be used, however, they should be administered twenty minutes before the patient is brought to the operating room.

In cases of extreme feebleness, or where the operation is likely to be an unusually long or severe one, it is well to throw ℥i of brandy, well diluted with milk, into the rectum just before commencing the operation. It is well to remember that the sphincters will occasionally relax during primary anæsthesia, and provision made accordingly to protect furnishings and clothes when they are in a position to be soiled.

Before anæsthetization is begun the anæsthetist should have within easy reach:

Two inhalers.

A mouth gag.

A pair of tongue forceps.

A towel to wipe away excessive mucous secretions.

Three or four sponge-holders armed with sponges.

An ether cone.

℥viii of Squibbs' stronger ether, for substitution in case chloroform acts badly.

Hypodermic tablets of nitro-glycerin, gr. $\frac{1}{100}$, and strychnia nitrate, gr. $\frac{1}{40}$.

A large, flexible catheter.

Brandy or whisky.

Vaseline or cold cream for the face.

A rectal syringe.

Hot water (105° F.), and

A hypodermic syringe, *not in his pocket, but filled and ready for use.*

Electricity and oxygen, although of doubtful utility, should, if possible, be at hand, in order to protect ourselves against lay and professional criticism.

In the case of epileptics a small gag should be placed between the teeth, in order to protect the patient's tongue against possible injury in case of a seizure occuring during the primary stage.

Finally, the chloroform should be pure—that is, it should be free from oily matter, muriatic acid and uncombined chlorine.

THE ADMINISTRATION OF CHLOROFORM BY INHALATION.

It has been demonstrated by Snow that, when 12 minims of chloroform circulate in the blood they produce primary anæsthesia; when 18 minims of chloroform circulate in the blood they produce surgical narcosis; when 36 minims of chloroform circulate in the blood they produce paralysis of the medullary centres and death. Again, one minim of chloroform is equal to 1 cu. inch of chloroform vapor, and it requires 7 cu. in. of air to take up 1 cu. in. of chloroform vapor; hence, 36 minims of chloroform, or a fatal dose, produces 37.5 cu. in. of chloroform vapor, which requires 262 cu. in. of air to hold it. Now, allowing 20 cu. in. as the amount of tidal air, it would require 15 respiratory acts to take in the 262 cu. in. of vapor

thus formed. If a vapor of this strength were continually inhaled it would be simply a question of time when the residual and reserve air would become saturated, and as 200 cu. in. represents the amount of air constantly present in the lungs, this amount would contain the vapor of 30 minims of chloroform. Allowing that only one-half of this quantity is absorbed, we would have 18 minims (the amount already circulating in the blood), plus 15 minims, *i. e.*, one-half the quantity present in the lungs, or, altogether, 33 minims of chloroform vapor, quite enough to produce paralysis of the medullary centres. (20 minims: Taylor, "Med. Jurisprudence.")

Bearing these facts constantly in mind, and with the clinical knowledge which the examination of the urine and the patient has given us, we lightly smear the patient's face with cold cream and commence anæsthetization by pouring a measured quantity (10 m.) of chloroform upon the inhaler, and holding it *near* (not on) the patient's face, he is told to breathe *quietly* and *gently*.

The patient should be perfectly flat, and preferably on the left side. There can be little question that the position of the patient has a great deal to do with the favorable or unfavorable action of the anæsthetic. Indeed, Buxton, after a large series of observations, is forced to conclude that the difference in the condition of the pulse and respiration of patients chloroformed in the dorsal and lateral positions, has been so striking as to force on one the lesson of placing every patient, where it is possible, on the left side.

Chloroform should never be administered in the standing or sitting postures. At times, circumstances may make it necessary to commence anæsthetization in the semi-prone position, but it is a procedure that is always to be deplored, and is not unattended with danger. The

clothing about the neck, chest and abdomen should be absolutely loose, so that respiration may be free and the movements of the chest and abdomen unhampered. Corsets, if worn, should be removed. The anæsthetic at first should be administered very gradually, and every effort made to lessen the initial excitement. If a patient is brought to insensibility struggling, resisting and protesting, he will prove a source of trouble throughout the entire operation.

Anæsthetization cannot be properly effected if loud conversation is to be indulged in, or if the patient is to be constantly interfered with by examinations, handling and washing. One case of this kind will forcibly illustrate the importance of absolute quiet and repose for the patient until he is completely under the influence of the anæsthetic.

It has been a matter of common observation with the writer that "neck" cases (patients suffering from tumors or enlargements about the neck) take anæsthetics badly. It is possible that the interference with the circulation, produced by the pressure of these growths on the cervical vessels, may be an explanation of this. The venous congestion already present, is naturally increased by the anæsthetic, and this venous stasis leads to cerebral engorgement, with consequent respiratory and circulatory embarrassment; hence, in this class of cases the stage of excitement should be reduced to a minimum, and, if possible, avoided entirely. While this is a matter of concern in all cases, it becomes a matter of most serious import in patients past middle life suffering from atheromatous arteries, where this great increase of vascular tension may very well lead to rupture of one of the cerebral vessels, with consequent paralysis and death.

Many deaths are reported from chloroform during the

stage of excitement. Nothing can possibly be gained by washing and examining the patient before he is "under." Indeed, much time is lost by this meddlesome interference. Particularly is this the case in bladder and rectal cases, where any examination or manipulation of these parts at once causes the patient to strain. As a result, he promptly stops breathing, gets blue, commences to struggle, and the anæsthetist is brought to a stand-still. Not only is further progress out of the question, but the little that has been gained is lost. The hands should not be held, as this provokes resistance and excites needless alarm.

From the commencement to the close, without intermission, the anæsthetist's finger is to be kept on the temporal or facial artery, the pupil to be frequently inspected, the patient's color watched, and the respiration listened to constantly. This last is all-important, and as the breathing is often very shallow, no loud talking, within hearing of the patient, should be permitted during the operation or immediately before. These four points should receive the attention of the anæsthetist from beginning to close without interruption. Should the patient struggle, and it become necessary to hold him, especial care should be taken that no pressure is exerted against the abdomen; for, as respiration is largely abdominal under anæsthesia, it is easily possible for it to be brought to a stand-still.

The anaesthetist should *know* that the patient is breathing. Spasmodic movement of the diaphragm are no index that air is entering the lungs. The anæsthetist should be impressed with a profound sense of his responsibility, for on this condition alone can the administration of chloroform be undertaken with anything like safety.

A study of the pupil changes is very important. A pupil well contracted down is a sign of safety, while a pupil in wide dilation denotes approaching danger, and is to be met by the prompt withdrawal of the anæsthetic, it being constantly borne in mind that atmospheric air is the natural antidote to chloroform, as pain is to opium. But it must be pure air—not air that is saturated with carbolic acid or chloroform vapor, and in an emergency one of the first things to do is to throw open the windows and clear the air as rapidly as possible. Danesi ("Boll. d'oculi," xv, 18–4,) insists that the pupillary reaction is the safest guide in the administration of chloroform, although it is denied by many authorities.

The patient's color gives us valuable information. An ashen or livid hue is a bad sign—much worse, indeed, when due to failure of the circulation than when it can be accounted for by respiratory embarrassment. The addition of fresh chloroform to the inhaler is to be gauged by the odor which it yields. If no odor of chloroform is to be detected on the inhaler, it is proper to add a fresh quantity—always using the minimum amount—that will keep the patient insensible, and judging of this amount by his pulse, his color, his respiration and pupil. It has been the custom of the writer, for the past two years, to place his greatest reliance upon the color of the patient's ears. The circulation in these members is peculiarly feeble, and any embarrassment of the circulation will show itself here at the very earliest moment. A red or pink ear is a sure index of well being, while an ear that is ashen or livid is a certain sign of impending danger, or of danger that is already present.

Complete muscular relaxation, loss of corneal reflex, and stertorous breathing, are an index that insensibility is complete and that the operator may proceed. The de-

gree of insensibility required will vary with the patient and the nature of the operation, but in general terms the least will be required in uterine and the most in rectal operations. In testing the corneal reflex the finger should never touch the eye-ball. This too common habit is coarse, and not fine. All that is necessary is to lightly brush the cilia with the finger. Another rather delicate and ingenious method is to gently blow against the eye-ball. During the operation it will be found practicable, from time to time, to remove the inhaler altogether, and this should be done.

The deeper and quicker the respirations, the larger the quantity of chloroform vapor carried into the lungs, and the greater the effect. If a patient only partially anæsthetized suddenly stops breathing and strains, the rapidity of the absorption of chloroform vapor into the lungs is increased. If the circulation of blood through the lungs, as shown by a dusky or congested face, is exceptionally slow, the opportunity for absorption will be again increased. It is perfectly evident that any one, or all three of these conditions being present, there is more than ordinary danger that blood may be carried to the heart overcharged with chloroform vapor, and that the most alarming symptoms may very well supervene.

It is well to keep the patient's head a little extended, and to remove the inhaler altogether from time to time. Chloroform is to be added to the inhaler with circumspection, the minimum quantity being used that will accomplish the desired end. The anæsthetist must be the sole judge of the anæsthetic, judging of this by the patient's color, respiration, pupils and pulse, and the "a little more chloroform, Doctor," of the operator is not to be acceeded to too readily.

Should it become necessary from any cause to change

to ether, sufficient time should be allowed to elapse for the chloroform vapor to be inhaled from the patient's pharynx, as otherwise the deep inhalations induced by ether, might very well carry an overdose of chloroform to the patient's heart. The patient should have plenty of good, fresh air, and no crowding of bystanders about his head should be allowed. He is to be kept as quiet as the nature of the operation will permit. Any shaking up of a patient under the influence of chloroform is a very serious thing. Under no circumstances can it be justifiable to raise the patient to the sitting posture or to suddenly change his position. It is unsafe for a patient to assume the upright position for at least an hour after the anæsthetic has been withdrawn. The administration should be carried on evenly. To administer 3 or 4 minims for some time and then suddenly crowd ʒi of the anæsthetic upon the patient, is fraught with danger. The administering of chloroform to a patient already under the influence of ether is to be conducted with the utmost caution.

Every effort should be made during the operation to lessen shock, for its avoidance is a most important thing in chloroform narcosis. Should alarming symptoms at any time supervene, they are to be met by the prompt withdrawal of the anæsthetic, the inversion of the patient and the hypodermic administration of strychnia nitrate, gr. $\frac{1}{20}$—$\frac{1}{10}$ every half hour or hour, until the pulse is slowed and strengthened. The amount of chloroform necessary to induce anæsthesia, and the quantity required to complete any operation, will vary with the individual and the same individual under different circumstances.

The following table, which I have compiled from personal observations, will indicate some general truths:

The shortest time taken to induce surgical anæsthesia

by chloroform was seven minutes; the longest time, twenty-one minutes; the average time, twelve minutes. The smallest quantity of chloroform required to induce surgical anæsthesia was ʒi; the largest quantity, ʒiii m. xl; the average quantity, ʒii m. iv. The longest time a patient was kept under the influence of chloroform was one hour and a half. The largest quantity of chloroform used at any one time was ℥i ʒi. The oldest patient was seventy-four years of age; the youngest, five weeks. No vomiting occurred during the administration of the anæsthetics in any of the cases. Vomiting succeeded the chloroformization in two cases. Most alarming symptoms of respiratory and circulatory collapses occurred in three cases—all children. Ether was substituted in two cases. One of the worst cases was in a child five years of age, that had taken chloroform well at a former operation. In one case, after the patient had "come around," the attempt was made to finish the operation with chloroform, but the alarming symptoms suddenly reappeared, and the operation was hurriedly brought to a close.

It goes without saying, that to entrust the administration of chloroform to any but a skilled medical man, is nothing short of criminal malpractice. The points I would wish to emphasize are:

(*a.*) That chloroform is a dangerous drug.

(*b.*) That its dangers can be reduced to a minimun only by the most scrupulous attention and conscientious care on the part of the anæsthetist.

(*c.*) That to administer chloroform properly is all that one person can possibly do, and that it is not a time to assist, to indulge in conversation with bystanders, or to watch operations in order to familiarize one's self with the steps of scientific procedure.

ESSAY.

BY DOWLING BENJAMIN, M. D., OF CAMDEN, N. J.

THE VALUE OF ANTITOXIN AS A REMEDIAL AGENT AND AS A PROTECTION AGAINST DIPHTHERIA.

To thread one's way through the enormous and conflicting mass of statistics published in regard to the treatment of diphtheria by means of antitoxin, or serum therapy, is an undertaking sufficient to appall the stoutest heart. By patience and application, we may observe a few prominent facts, however, and apparently substantial enough to serve as useful monuments to guide us through the wilderness of uncertainties to some safe vantage ground.

THE RESULTS IN PRIVATE PRACTICE.

A study of the results of the antitoxin treatment presents much greater difficulties, for obvious reasons, in private than in institutional practice. Exactly what the results have been, cannot be ascertained, as it is not possible to obtain the personal and private statistics of each individual physician; nor would it be wise, since such results might do injustice to thoroughly competent and excellent men. If results are particularly good, however, occasionally an individual practitioner will publish them, which seems to be the only way we can get at them.

The limits of this paper would not permit the quoting of all of the publications by private practitioners, giving

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DEAR DOCTOR :—Under separate cover we are sending you some recent literature on antitoxin, by Dr. Edwin Rosenthall, who has probably had the largest experience of any practitioner in the country.

Very truly yours,

——— ———.

This recent literature consisted of a reprint from the *Atlantic Medical Weekly* for March 21, 1896. In this paper Dr. Rosenthall says, in speaking of the number of cases treated with antitoxin: "I have treated seventy-eight cases of diphtheria, with but two deaths."

It is important to state, however, that Dr. Rosenthall has found that mercury is equally as good a specific for diphtheria as antitoxin. According to the *Medical and Surgical Reporter* of June 13, 1896, at the Philadelphia County Society's stated meeting, May 27, 1896, "Dr. Edwin Rosenthall said that before the advent of the antitoxin he had always considered mercury a specific for diphtheria. As early as 1885, he had given calomel in diphtheria, but in rather larger doses than Dr. Flick. In laryngeal diphtheria he has given as high as five grains every hour—in fact, he has given as high as 120 grains to a child five years old in twenty-four hours; nor did he notice that the child showed any of the physiological action of the calomel. He was led to believe that to ptyalize a child who suffered from diphtheria was an impossibility, and he not only gave such large doses of calomel to these children, but he had used at the same time corrosive sublimate in enormous quantities, having introduced 1-500 solutions into the child's nostrils, and swabbing out the fauces without, probably getting into the body of the child about a grain of corrosive sublimate in twenty-four hours."

If the Doctor had deaths to occur under the above treatment, I believe he would have said so, as it was a

vital point at the time—just as important as to state the death-rate under antitoxin; and if he has treated seventy-two cases since the advent of antitoxin, he must have treated a great many more before with as good or better results, or else we will have to leave his evidence out altogether.

Dr. S. S. Haldeman, of Portsmouth, Ohio, in a paper read before the Ohio Medical Society, on May 28, 1896, says: "I have had an experience of eight months in the treatment of diphtheria with antitoxin, embracing the administration of the remedy to seventy cases of the disease, several of them bacteriologically examined, and all presenting the usual well-marked signs and symptoms of the disease, and occuring during an epidemic of a severe type, characterized by a high rate of mortality, where the antitoxin was not employed in the treatment, without losing a case treated."

He used it for the purpose of immunizing in twenty-seven cases that had been exposed to the disease, with the desired result of preventing the disease in all but three cases. In these three cases the disease began before the end of the third day, after immunization.

He also stated: "That in a child five years old I had used the antitoxin for the prevention of the disease, the child being perfectly well. The child died in four minutes. Other children injected at the same time were not injured by the antitoxin."

He says: "As to the cause of the fatal result, it is not clear to my mind."

He said, further: "The wide adoption of antitoxin as a remedy in diphtheria enables one to draw some useful conclusions as to its value. Yet I speak with some caution and reserve, with my limited experience of the remedy, and the results in my own practice have led me

to wonder if it were really the treatment with antitoxin or the non-employment of remedies, such as chlorate of potassium internally, and the local irritants to the diseased parts, that had something to do with the uniform and rapid recovery of my cases."

He further states: "Usually in conjunction with the injection of antitoxin, I would give calomel pretty freely, and hourly of a prescription combining a few drops of tincture of ferric chloride in glycerine and syrup."

He further stated: "After exfoliation of the membrane, and the subsidence of fever, I would give small doses of quinine and strychnia every four hours, to a child one year old, and order this continued for not less than three or four weeks."

He also stated: "Of the various local applications administered, I think most of that of Prof. Lœffler. For a young child I have diluted the solution with alcohol and water, and directed that the mouth be swabbed out with this preparation, but in the case of older children and adults, would advise the use of the solution in full strength. The preparation consists of menthol, 2½ drams dissolved in 9 drams of toluol, 1 dram liq. ferri. chloride, and alcohol 2 ounces."

He used "local disinfectants to prevent, or limit the growth of bacteria in the throat and supporting treatment!" He had but one case with laryngo-stenosis.

Query: Which one or two of the above remedies cured the disease?

It is well to remember that Prof. Lœffler cured seventy-one consecutive cases of genuine diphtheria in 1894 with the same remedies that Dr. Haldeman used, (except the antitoxin), during an epidemic, the general mortality of which was 28%. (See Lœffler's report at the eighth International Congress of Hygiene and Demogrophy, held at Budapest, September, 1894.)

THE USE OF ANTITOXIN IN GENERAL PRACTICE IN CAMDEN.

Since the introduction of antitoxin, July 5, 1894, by (it is claimed) Dr. Robinson, it has not been very extensively used in Camden. As far as I can learn the number of cases in which it has been used would not exceed 100, and by quite a number of physicians.

Last May Dr. McAlister reported, in private practice, 10 cases, with 2 deaths, and at W. J. Orphanage, 19 cases, with no deaths.

Dr. O. W. Bramer has treated 30 case of diphtheria with tincture chloride of iron internally, and local antiseptic sprays of creolin, without a death. He tried antitoxin in three cases—no worse than some of the others, with one death, a mortality of 33%.

One of the best means of getting at the results of the new treatment outside of hospitals, that we can use at present, is to take the general returns of the disease from all sources of private practice, ascertain the mortality, and compare with an equal number of cases returned by private practitioners not using antitoxin, and ascertaining the death-rate.

In this method, however, there are two sources of error. One is the difficulty in knowing to what extent the antitoxin has been used in general practice, and in ascertaining whether the cases were in all respects sufficiently similar as to the prevailing type of the disease, and their environment. All the official returns available, however, are composed of both private and institutional practice; no attempt being made by the Boards of Health to keep separate lists.

The results of treatment in 10,240 cases of diphtheria in the German hospitals and in private practice, were

recently reported to the Society for Internal Medicine by Prof. Ulenburg. Of this number, 5,790 were treated with the antitoxin serum, with 552 deaths, a mortality of 9.5%, for all ages; 4,450 were treated by other methods, with 652 deaths, a mortality of 14.7%.

The German government is interested in the sale of antitoxin, and most of these statistics are prepared by government officials. It should be noted that most all the literature on the subject is being furnished the profession by manufacturers and importers of antitoxin, and I am sorry to find they mostly leave out unfavorable reports. It is worthy of note that foreign statistics, especially the institutional, are so different from ours in their results that there can hardly be any comparison. For instance: The high mortality, averaging from 50% to 75%, claimed by European hospitals to have been their rate previous to the antitoxin treatment, is something an American practitioner cannot understand. Their standard text-books have never made such claims of mortality. Either Europe must be a very unhealthy place, or the professional skill is not equal to the American.

The most decided and brilliant test of antitoxin, and the most favorable one yet, seems to have been the one reported by Dr. Otto Katz, of results obtained in the "Kaiser und Kaiserin Frederich Kinder-Krankenhaus," of Berlin, with Schering's antitoxin, in a paper read before the Berlin Medical Society, June 27, 1894. From January 1, 1894, until March 14, the date when the new treatment was begun, there was, in 86 cases, a mortality of 41.8%. From March 14 to June 20, 128 diphtheritic children were treated with antitoxin, with seventeen deaths. In every case, Lœffler bacillus was demonstrated by means of blood serum culture. Now, if we add to this thirteen per cent., the six moribund cases that were

received at the hospital at the same time, it would give us a mortality of 19.21 per cent., as against 41.8 per cent. These are the celebrated "brutal figures," which converted Prof. Virchow.

The other treatment has remained the same that it was before the injecting method was introduced. Local applications, sprays and salves were used as before. Tracheotomy or intubation was done for the same indications.

When the antitoxin ran out, in July, in this institution, the mortality arose to its usual high average, and fell again on the renewal of the antitoxin treatment; but the average of deaths per year, in proportion to population, is no less than it was before the advent of antitoxin, though the remedy is said to be in general use in Berlin.

To return to the United States: In Boston, during the year 1895—antitoxin period—588 deaths occurred, or 11 for every 10,000 inhabitants. For fourteen years preceding the antitoxin treatment, the average mortality, per 10,000 of the population was 9. In New York, under antitoxin treatment, 1894–95, 3993 deaths, or 10 deaths for every 10,000 inhabitants. During the fourteen years preceding the antitoxin treatment, the deaths averaged each year, 10 per every 10,000 inhabitants, which is about the same as it was after the introduction of the antitoxin treatment. The same is true of Brooklyn. There were 1139 deaths from diphtheria in Brooklyn, during 1895, or 10 for every 10,000 of inhabitants. In 1890, before the antitoxin treatment, there were, in Brooklyn, 902 deaths, which is 10 per every 10,000 inhabitants.

These are from the official returns of the Health Department, in Camden, N. J. (From official records). In the year 1893, there were 285 cases, with a death-rate

of 23%, or 16.60 per 10,000 inhabitants; in 1894, there were 314 cases, with a death-rate of 16%, or 10.10 per 10,000 inhabitants; in 1895, there were 168 cases, with a death-rate of 18%, or 4.50 per 10,000 inhabitants (Antitoxin); in 1896, to June 15, there were 117 cases, with a death-rate of 18%, or 6.40 per 10,000.

HOSPITALS.

Now, for the three great hospitals, to which we must look to settle the question of antitoxin statistics, largely, in America. In these three, namely, the Boston, New York and Philadelphia Municipal hospitals, antitoxin has been applied thoroughly for a year. It would be fair to presume that a greater number of mild cases were sent to the hospitals since the advent of antitoxin, than before, as physicians have improved greatly in their habit of sending to the health officers, notice of their cases, in the last two years, for two reasons, namely: they more fully appreciate the importance of the matter, and health authorities have more vigorously enforced the ordinances. The returns have improved in Camden since the Board of Health proceeded against several physicians, and such is the case in all the large and progressive cities. In Berlin, after two doctors were arrested and punished, the returns *doubled.*

For a generation, the law has been that all deaths must be returned before interment could be made, but for various well-known reasons, many cases were not reported unless likely to die, or quite malignant. About a year ago, one of our prominent physicians was ordered to be prosecuted for not reporting two cases of diphtheria, which died; the existence of which would never have been known to the Board of Health, had they not been applied to for the burial permits.

In the Boston City Hospital, in the year 1892, there were 387 cases, with a death-rate of 47.87%; in 1893, there were 419 cases, with a death-rate of 48.44%; in 1894, there were 598 cases, with a death-rate of 44.48%; in 1895, there were 1,566 cases, with a death-rate of 13.21% (Antitoxin).

In the Willard Parker Hospital (New York), in the year 1888, there were 258 cases, with a death-rate of 23.25%; in 1889, there were 383 cases, with a death-rate of 20.62%; in 1890, there were 292 cases, with a death-rate of 22.94%; in 1891, there were 289 cases, with a death-rate of 29.41%; in 1892, there were 295 cases, with a death-rate of 26.77%; in 1893, there were 343 cases, with a death-rate of 31.41%; in 1894, there were 699 cases, with a death-rate of 29.32 (Antitoxin began); in 1895, there were 778 cases, with a death-rate of 24.42 (Antitoxin thoroughly used); in 1896, to May 1, there were 251 cases, with a death-rate of 23.10% (Antitoxin thoroughly used). The death-rate, therefore, at the Willard Parker Hospital, was *lower* in 1889 and 1890, without antitoxin, than it is under the antitoxin treatment, carefully applied for a over year.

I have visited New York for the purpose of investigating the subject. I find Dr. Winters, of the Willard Parker Hospital, has carefully investigated and verifies these statements. His impression is, that thirty-eight per cent. mortality would fairly well represent the actual mortality of the Willard Parker Hospital, at the present time, under serum therapy, if patients who have clinical evidence of diphtheria were subjected to this treatment, to the exclusion and elimination of those cases which have no clinical data to warrant the diagnosis of diphtheria. This was the percentage found by Dr. Ewing, in such cases, in that hospital, and in laryngeal cases, the

mortality is seventy per cent., while in Geneva it is forty-nine, without the use of antitoxin. In the University College Hospital, London, it was forty-seven per cent., without antitoxin. In Philadelphia Municipal Hospital, it is fifty-two per cent., with antitoxin.

I have anxiously awaited the criticisms of Dr. J. W. Brannen, of the Willard Hospital, in regard to the statement and figures given by Dr. Joseph P. Winters (already quoted by me), before the New York Academy of Medicine, May 21, 1896, expecting that he would be able to show many important defects in Dr. Winters' statistics, but I find that, while he depreciates the unfortunate position in which Dr. Winters places the hospital, and discusses some of the subordinate issues, and even goes so far as Japan for testimony, yet he makes no perceptible impression, whatever, upon the valuable paper of Dr. Winters, whose figures seem like the rock of Gibralter, to stand firm and unscathed from the assault. The simple, plain fact remains, that the antitoxin treatment has not lowered the death-rate, to say the least, in that institution. Nor was *early* treatment by antitoxin better than *early* treatment by the other antiseptic practice.

In the Municipal Hospital, Philadelphia, the results for 1895, were as follows: 302 cases treated with antitoxin, with a mortality of 28.14%, and 404 cases treated without antitoxin, with a mortality of 25.99%. Of the 301 antitoxin cases, 51 were intubated, with 27 deaths, or 52.94%; of the 404 cases without antitoxin, 71 were intubated, with 40 deaths, or 56.33 per cent. Of the antitoxin cases, 16.88% were intubated; of the non-antitoxin cases, 17.57% were intubated. In nearly all the cases, perox. of hydrogen was used as a spray, locally. In the 404 non-antitoxin cases, tinct. ferri.

chlor. and hyd. bi-chlor. were used internally. In the 302 antitoxin cases, tinct. ferri. chlor. was used.

In the Northwestern and Southwestern Hospitals, London: 1892, '93, '94, of 4,762 cases treated, the mortality was 25.4%. In all the hospitals: 1895 (antitoxin), of 2,182 cases, with 28.1%.

What is embodied in the foregoing in regard to antitoxin as a therapeutic agent, must arouse in thinking minds a number of reflections. No suject since the earliest dawn of medical science has been so thoroughly and extensively investigated in so short a time, as has the use of antitoxin in diphtheria. This is gratifying, for it shows that the science of medicine has emerged from its puerile stage and is advancing to maturity and accuracy. By the enthusiastic and universal application of this by the profession throughout the world, we can settle in one year a question that would have taken one hundred years by the slow progress of a few generations ago. Electrical transmission of intelligence and statistics have shortened periods of investigation at least 99 per cent.

The results of treatment without antitoxin in the United States, seem to be better than the results of antitoxin in Europe. The results with antitoxin in this country have not been nearly so favorable as have been results reported from Europe. The fact is, that in nearly all the instances where antitoxin has been used, it has not been relied upon exclusively, but other treatments of the most important and powerful character have been used at the same time. It is worthy of remark that in all cases where good results have been obtained, antiseptics or disinfectants have been applied to the throat and mucous membrane.

With all the mass of accumulated facts, experiences

and figures, in another year the value of antitoxin can probably be fairly and conclusively settled. To discuss the value of antitoxin as an immunizer, is beyond the limits of this paper. Suffice it to say that from what I can gather from a fair and impartial investigation of the subject, it appears that antitoxin does immunize in the majority of cases, but not more than for about thirty days. It does not destroy the bacilli of diphtheria at all. They seem to remain in the throat the usual length of time, a constant source of danger to other persons, unless local antiseptics be used.

A number of cases are on record where antitoxin has been injected as an immunizer or to cure patients, and has caused death. These are not sufficiently numerous, however, to forbid its use, provided its curative claims can be established, as deaths occasionally occurring from the use of ether are not a sufficient argument to lay it aside as an anæsthetic, and there is good reason to believe that carbolic acid or some other foreign substance in the antitoxin has been the cause of these accidents. The theory of the antitoxin treatment seems to be perfect, and the treatment seems to work well in the laboratory; but, as Prof. Virchow has stated, "Every consideration and theory must give way to the mere brute force of figures," and there doesn't appear to be quite enough figures as yet.

We are no doubt so familiar with the early statistics which came from abroad, inducing the extensive trial of antitoxin in this country—statistics of a very favorable character, during the latter part of 1894 and the early part of 1895—that I have not encumbered this paper with them, as, after a year's trial, the latest results are the only figures of real interest and importance, and they do not seem so favorable as we could have wished. I do

not wish to be classed as a partisan in this matter; I am simply an earnest seeker after truth, trying to find the real value of a remedy, as suggested by this Society. I must remark that I have great confidence in the results obtained at the Municipal Hospital in Philadelphia, owing to my personal knowledge of the carefulness of Dr. Welch, the physician in charge.

THE ANTISEPTIC TREATMENT OF DIPHTHERIA.

Nothing could be of more practical value in the science of medicine than results obtained by a physician of ripe experience with a common disease, after fifteen or twenty years of careful practice and close observation; and I wish to lay before you a presentation of what I consider the antiseptic method of treatment as applied to diphtheria. In 1877, in my graduating thesis, at the University of Pennsylvania, which received honorable mention from that institution, I wrote as follows:

"The evidence that disease may be caused by germs, at least in some instances, amounts to demonstration; and it should be recollected that low organisms split up their nutrient matter, or fiabulum, into new compounds, which, in many instances, have a powerful effect upon the human system, and may disturb their functions as long as they are generated within it. When we view the practice of medicine and surgery with reference to this subject, we find that all those meteorlogical influences, all those hygienic conditions, all those medical and surgical appliances and means which are most antagonistic to the form, growth, development of living germs and low forms of life, have been the most effective in the treatment of contagia, even before the laws of germ development, and their relation to disease were so well understood, as at present, practically (owing to the accuracy of

clinical observations) contagia were treated, in many instances, as if their true nature had been known. Quarantines were established and disinfectants quite intelligently used; but now, guided by a better knowledge and understanding of the nature of zymotic disease, *we are able to lay down a foundation of broad principles upon which to erect the superstructure of a more perfect practice.*"

Since that time pathogenic germs, or bacilli, have been so universally admitted by the profession to be the cause of the zymotic disease, that it can no longer be a debatable point in pathology. You cannot have diphtheria without the presence of this microbe. Like all other vegetables, especially the low forms of life, it is necessarily subject to variations in the character and amount of its poisoning products; for the bacillus, after all, is not the real poison which causes such disastrous consequences in the human system, but the ptomaines which it produces.

Various staphilococci and micrococci found in connection with this germ, in diphtheritic cases, no doubt, produce some of the lesions found in the neighborhood of the diphtheritic points, especially, the secondary affections. It is claimed, by good authorities, that an attack of diphtheria immunises a patient. Bearing upon this point, my own experience is, that I have never known two well-marked attacks of severe diphtheria in the same person. I have seen two cases followed in a year or two by lighter attacks. The literature on the subject would cause me to think that others have had a different experience.

The formation of the membrane is not well understood. It appears to be an exudation of fibrin from the capillary blood vessels, under a high state of irritation and congestion, in the same manner as it is produced by

any other irritant or congestion, and may be seen sometimes thinner and sometimes thicker in stumps that are left open to "glaze," as in peritonitis, croup, etc. Now, the question arises, as to the nature of those peculiar cases of diphtheria that show intense intoxication, and even die before any visible membrane is formed. It seems quite probable (indeed, I do not see how we can arrive at any other conclusion, with our present knowledge of this disease), that large surfaces of the pharynx and nasal cavity have been covered by the bacillus in very active and virulent form, so that sufficient toxine has been absorbed into a susceptible system to produce fatal symptoms before the exudation has had time to form.

Pseudo-membranous croup, I believe to be an entirely different and distinct disease, clinically and etiologically. While the Lœffler bacillus is always found at some stage of true diphtheria, it is not found in croup, except as a rare and accidental visitor. The microscopical and clinical pictures of these two diseases are totally distinct. Croup usually begins at the larynx, with little or no fever, is progressive and fatal. simply by a mechanical stenosis of the larynx, occasionally extending into the bronchi, seldom visible in the pharynx, and without the Lœffler bacillus. Diphtheria, on the other hand, usually begins with fever, symptoms of intoxication, and one of the first things seen on examination, is the exuded patch in the throat, often tinged with a little yellow. No doubt, many cases of true diphtheria were formerly treated as cases of croup, or have been returned as such after death. I do not believe that croup is a contagious disease. Never, but once, in the practice of nineteen years, have I seen two children with croup at the same time in one family. At present, I am inclined to believe that

membranous croup is not due to any bacillus, but, most likely, due to severe local congestion, or a disturbed circulation, caused by exposure of parts of the body to cold and dampness.

Follicular tonsilitis is sometimes mistaken for diphtheria; it differs clinically and microscopically, and I think we are rapidly approaching a period when it will be demanded of the entire profession, to make use of the microscope in differentiating these closely-allied throat diseases, and that the Board of Health has done a good thing in ordering all cases of supposed croup to be returned to the Board in less than twenty-four hours.

LOCAL QUARANTINE IN DIPHTHERIA.

My experience has been that it is easy to quarantine a case of diphtheria in a room, successfully preventing a spread of the disease to other inmates of the house I do not think that the germs spread more than a few feet from the patient, but may be rapidly spread by contact or fomites. In two instances where I had successfully quarantined a case from the rest of the family, in about a year afterwards a number of the family were taken with the disease, not having been exposed elsewhere, so that we were driven to the conclusion that the quilts or something that had been in the room had not been properly sterilized. This leads me to a very important reflection in regard to quarantine in a city, namely: if the case of diphtheria was properly quarantined, why could not the family be permitted to go to their work, pursue their usual avocations, and not be submitted to the very objectionable fate of being compelled to remain in that house during the disease; and, since the disease is more likely to be carried after the general quarantine has been removed from the house, by the inmates, for

months or years, is it not equally safe, with *proper room* quarantine to allow the inmates egress and ingress during the existence of the case in the house?

Now, since the authorities do not always thoroughly and persistently quarantine a house, as every physician knows, during our epidemics, the inmates of the house go out and intermingle with their neighbors, it might be more practicable and agreeable to a community for a Board of Health to quarantine a *portion* of the house. This procedure has many things in its favor. How is the bread-winner of the family to pay his rent, when he has a family? How can he pay the doctor? Under proper conditions he could see his child, without carrying the disease.

INTUBATION *vs.* TRACHEOTOMY.

I always prefer intubation, and I have had recoveries take place with intubation, under conditions which I believe would have proven fatal had tracheotomy been performed; however, we have tracheotomy to fall back on in case intubation fails.

LOCAL TREATMENT.

I make the bacteriological or culture test in all cases where possible. From the foregoing statements it may be seen that we hold that this disease is essentially a local and external disease, for anything on the mucous membrane, practically, is not in the system, but the products of the bacillus, being absorbed into the system as fast as produced, causes the general and constitutional symptoms.

Basing our treatment upon the views above stated, we have, for nineteen years, held that the rational procedure in combatting this disease was simply to destroy the bacilli, wherever they were located on the mucous mem-

brane of the throat, or elsewhere, by the proper application of antiseptics or germicides, and meeting the poison in the blood by such therapeutic means as were best calculated to, physiologically and chemically, antidote it.

Now, while many scientific and learned physicians have followed these lines in treating diphtheria, they have so frequently been disappointed in their results, and struggled along with a high mortality, (in many cases 30% to 40%). Yet, I have always contended that this is the correct line of treatment, and will give the best results if accurately and thoroughly carried out. The important consideration, therefore, is, what local and general medication to use, and equally important, the method of applying and using these remedies; for I believe that the failure to cure by this practice will be due either to a want of proper applications of the treatment or to the fact that it has been commenced too late in the disease.

If you will refreshen your anatomy of the interior of the nose, pharynx and larynx, you will agree at once that no treatment applied by the ordinary swab, or probang, could, by any possibility, reach the disease at its most dangerous points, and, consequently, must be very inefficient in nasal and laryngeal cases. Even the physician himself could not apply the treatment thoroughly in an adult, and the idea of applying it in a struggling child is preposterous. Moreover, since the treatment has to be applied every hour at least, it must be left to the family to be carried out. It is, therefore, utterly impracticable, and I have found where it has been used it did not accomplish the results.

Antiseptics applied by the nasal douche, after Thudicum's method, do reach the nasal cavity pretty thoroughly, but it is so difficult to accomplish that it cannot be used with children in private practice to any great ex-

tent, even if the physician superintends its use. Gargles, of course, are of little or no use in the nasal and laryngeal cases.

The spray or atomizer, therefore, remains the only feasible method of applying antiseptics to all parts of the affected mucous membrane. To the recognition of this fact, and its early and thorough adoption, together with having an efficient and pleasant antiseptic remedy, I must attribute largely my success in the treatment of this disease.

I acknowledge that it is with the profoundest diffidence and respect for the criticisms of my medical brethren, that I advance the following statement: For over ten years, in one hundred cases of diphtheria, I have not had a death, unless a case that died about twelve years ago be included. In this case, there were three consulting physicians, and I have never been convinced that it was not a case of membranous croup. I early practiced the antiseptic treatment, and do not feel justified in experimenting with other remedies, while I have such excellent results, but I never use the bichloride of mercury, nor do I think it should be used in this disease, because I believe that its action, though beneficial, is almost wholly due to its local effect upon the bacilli in the throat. I believe that many cases, especially in young children, have been injured by the too free use of it. Other antiseptics, such as carbolic acid, salycilic acid, sesqui-chloride of iron, are equally efficacious, and may be used in ample quantity, without the same amount of danger.

Since we usually depend on the laity to apply our treatment, any treatment that can be properly and thoroughly applied, comparatively agreeable even to young children, must have vast advantages over any other. All

the mucous membrane, nose, pharynx and larynx must, in severe cases, be thoroughly sprayed with the atomizer, through the nose and mouth, at intervals of fifteen or twenty minutes, or more, according to circumstances, about fifteen seconds at a time, the child breathing as naturally as possible during the time. The spray comes in contact with every part, as you may prove, artificially, by throwing it into a wide-mouth, four-ounce bottle, containing irregular bodies, to represent the turbinated bones of the nasal cavities and folds of the larynx. The membranes rapidly disappear and symptoms improve. On several occasions, I have suspended the local treatment after the membrane and other symptoms have disappeared, and in twenty-four or forty-eight hours, the membrane would again spread itself over the throat (a few bacilli having been left alive), promptly disappearing again on resuming the local treatment, thus forcibly demonstrating its efficacy.

Prof. Lœffler claims that the disease being entirely due to germs lying in the throat, consequently, in a position where they could be reached by local antiseptics, could readily be cured by local application, and instances seventy-one cases of diphtheria, treated exclusively by local antiseptic applications, without a single death, in his private practice. This statement was entirely consonant with my experience and practice, instituted ten years before his great discovery of the germ itself.

If it be true (and I do not think that it can be successfully disputed now), that diphtheria is due to the presence of a germ in the pharynx, or thereabouts, why would not germicides destroy them?—for we know that we possess a number of the antiseptic or germicidal medicines, that are absolutely fatal to germs, and can be used in quantities sufficient for that purpose, without any

detriment of the patient. Holding the view of the disease that I have advanced, I never could see why a local treatment would not be all that was required.

Prof. Lœffler, after various experiments, suggested a combination of: Menthol crystt, 10 gm.; toluol q. s. ad. fac., 36 c. c.; alcohol absolute, 60 c. c.; liquor ferri sesquichloridi, 4 c. c. In making application to the throat of diphtheritic patients, the physician or nurse may use a disc of glass held between his face and the patient, to prevent infection from the sudden coughing and spitting of the patient. I have found the formula of Prof. Lœffler to be disagreeable to the patient, while the one I use has not that objection, and is quite as efficient:

THE FORMULA.

℞	Acid acet. dilut.,	f. ʒii.
	Pot. chlorat.,	ʒj.
	Acid carbol.,	gth. v.
	Tinct. ferri chloridi,	gth. v.
	Pulv. alumen,	gr. v.
	Acid salicylic,	gr. i.
	Glycerine,	f. ʒj.
	Aquæ rosœ,	f. ℥j.
	Aquæ,	q. s. ad. f. ℥iv.
M.	Use as directed.	

It is a clear and permanent liquid, of a fine purple color.

Constitutionally, I always give tincture of ferri chloridi in large and frequent doses, and I believe it produces the very favorable condition of the blood, as it does in many other cases of septicæmia, notably erysipelas, due to streptacoccus, which often disappears under that treatment alone. One of the benefits derived from this remedy, however, is its local action while being swallowed.

I was called to attend the sister of a little boy ten years old, the only son, who had died of the disease the day before. My assistant went with me. We found the little girl attacked with the disease in a very grave form: pulse, 140; temperature, 104°; respiration, 40, and the throat covered with a thick membrane. Placing her on treatment, marked improvement took place in a few hours. At the next visit the patch of membrane had diminished in size, the pulse reduced to 120, the respiration to 25. She was well in eight days and running about the house. Dr. Kelchner saw the case also during the treatment.

In another part of the town I was called in where there were five children with the disease, as well as the mother and her baby about six months old. Three children had just died across the street and were awaiting burial. Others in the neighborhood had the disease. These cases all rapidly recovered; as well as many other cases of which I have records. Strange as it may seem, *the more malignant the case, the more brilliant were the results obtained by this treatment.*

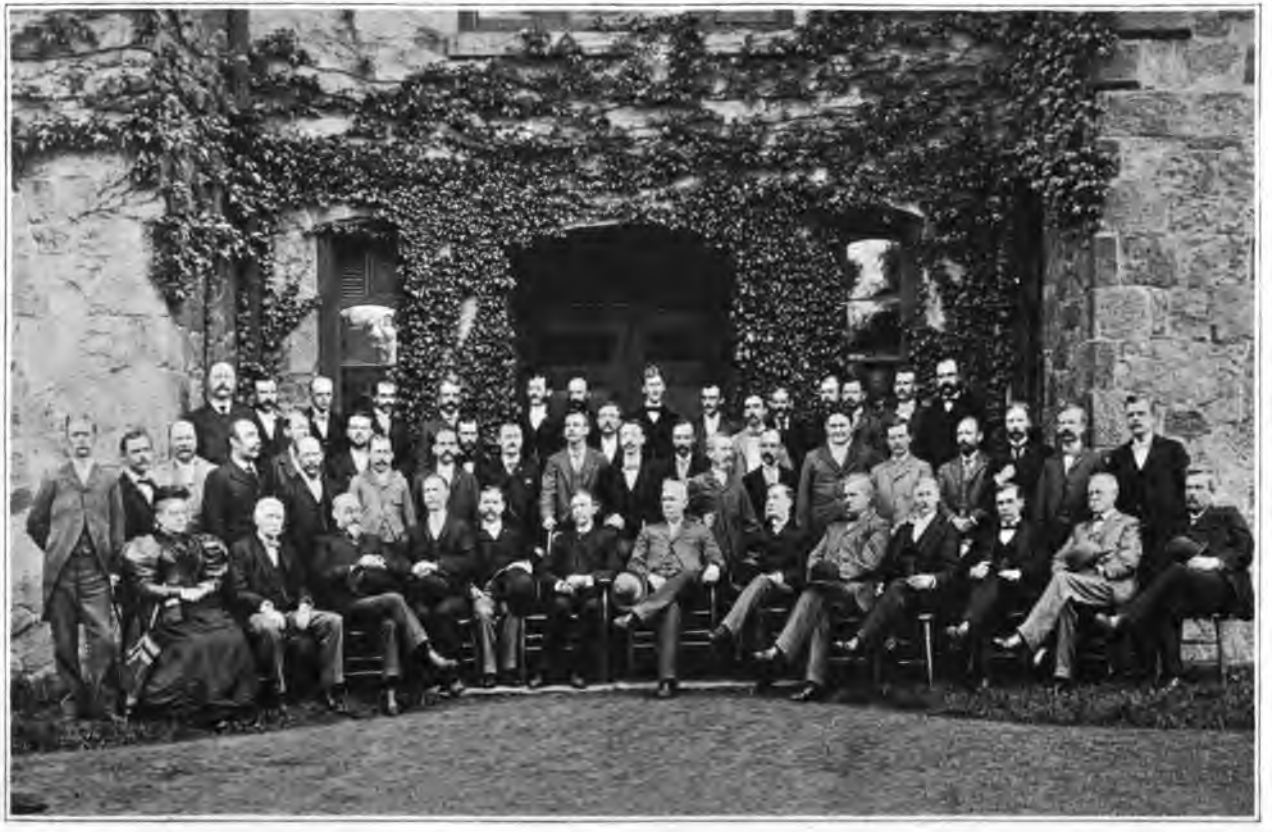
When I came to seek an explanation, it seemed quite natural that it should be so, for the abruptness and urgency of the attack caused the patient to send for medical assistance promptly. and the severe symptoms being due to the large number of germs covering the mucous membrane of the pharynx and throat, before sufficient time had elapsed to protect themselves by a false membrane, the local antiseptic treatment was pre-eminently effective.

This was especially illustrated in the presence of my friend, Dr. De Groff, in the case of a woman who was taken with the most malignant symptoms after having just buried her three children, who died with the disease,

under homœopathic treatment, on that day; having slept in the bed from which the corpses had been removed the day before, and having nursed the cases herself. She was practically well in forty-eight hours after our treatment began, attending to the household duties on the fifth day.

If it be true that we can save our patients by local antiseptic treatment, properly and early applied, the local treatment will displace the antitoxin treatment in general practice. Patients can go about with less danger of spreading the disease when convalescing, since their throats are sterilized, and no bacilli can be found by culture tests.

So quickly and completely does the antiseptic spraying of the throat destroy the bacilli, that it is necessary to get your cultures from the patient's throat *before* the medicine is used, as you will generally fail to find any bacilli after its use.



THE CAMDEN DISTRICT MEDICAL SOCIETY, 1896.

REPORT OF THE CELEBRATION OF THE FIFTIETH ANNIVERSARY OF THE ORGANIZATION* OF THE CAMDEN DISTRICT MEDICAL SOCIETY, HELD IN CAMDEN, N. J., FEBRUARY 11, 1896.

BY DANIEL STROCK, M. D., REPORTER, CAMDEN, N. J.

The first official action taken by the Camden County Medical Society, looking to a fitting commemoration of this important event in its history—the semi-centennial of its organization—was at the annual meeting held May 14, 1895, when the following resolution, introduced by Dr. John R. Stevenson, of Haddonfield, N. J., was unanimously passed:

Resolved, That a special committee of seven members of this Society be appointed by the President, to report, at the next regular meeting, a suitable programme for the celebration, in 1896, of the fiftieth anniversary of the Society's formation.

In accordance with the provisions of this resolution, the President, selected the following gentlemen to serve upon the committee: Drs. H. Genet Taylor, chairman; John R. Stevenson, Duncan W. Blake, Edmund L. B. Godfrey, Howard F. Palm, Henry H. Sherk and Benjamin S. Lewis. The committee held several meetings and formualted the following report, which was submitted to the Society at the semi-annual meeting, held November 12, 1895, and unanimously adopted:

* The Camden District Medical Society was organized in Haddonfield, N. J., August 14, 1846.

CAMDEN, N. J., November 12, 1895.

To the Officers and Members of the District Medical Society of the County of Camden.

Your committee, appointed to formulate a plan of celebration of the semi-centennial anniversary of the Society's organization, beg leave to submit the following report:

The committee held three meetings, under the chairmanship of Dr. H. Genet Taylor, and carefully considered the subject referred to them, and unanimously agreed to recommend the following programme for the celebration:

First. The celebration to take place on the date of the regular meeting of the Society, the second Tuesday in February, 1896.

Second. The public exercises to be of a literary and musical character, to begin at 3 o'clock in the afternoon, and to take place in the Temple Theatre, in Camden, N. J.

The committee further recommended that the following outline of programme be adopted:

1. Address of welcome, by the President.
2. Historical address, The District Medical Society of Camden County.
3. Historical address, The Medical Profession of Camden County.
4. Address on Modern Medicine.

These addresses to be interspersed with music.

Third. The Society, as a whole, to be photographed at some suitable time and place during the afternoon.

Fourth. A banquet to be served in the banqueting room of the Temple Building, at 6 o'clock in the evening.

We recommend that this Society authorize the Committee of Arrangements to select the speakers to deliver the addresses.

The committee also recommend the adoption of the following resolution:

Resolved, That this Society celebrate the fiftieth anniversary of its organization on the second Tuesday in February, 1896, in accordance with the programme recommended by the committee.

Resolved, That a special committee of seven members be authorized, to be appointed by the President, which shall have full power to arrange the details and programme.

Respectfully submitted,

H. GENET TAYLOR,
JOHN R. STEVENSON,
EDMUND L. B. GODFREY,
H. H. SHERK,
DUNCAN W. BLAKE,
HOWARD F. PALM,
BENJAMIN S. LEWIS,
Committee.

The President appointed as the Committee of Arrangements the seven gentlemen who had constituted the Special Committee.

The Committee of Arrangements, after a free discussion, at a number of meetings, modified the programme outlined in the Special Committee's report to the Society, and eliminated the second and fourth addresses, but decided that the address-in-chief should be on the "Medical Profession of Camden County," and Dr. Edmund L. B. Godfrey was invited to prepare and deliver it. Having accepted the invitation thus tendered, Dr. Godfrey deemed it incumbent upon himself to resign from the committe; but, by an unanimous vote of the members, he was requested to act as an ex-officio and advisory member. Dr. O. B. Gross, at one of the meetings, appeared before the committee and suggested that busts of two of the most prominent charter members of the Society be unveiled at the public exercises, with appropriate ceremonies; stating that the well-known sculptor, Franz M. Engdahl, would make and present the busts to the Society.

The proposition meeting with the approval of the com-

mittee, it was decided that the deceased members thus to be honored should be Dr. Richard Matlack Cooper and Dr. Othniel Hart Taylor. It was further decided that the address of presentation of the bust of Dr. Cooper should be made by Dr. O. B. Gross, and the address of acceptance by Dr. James M. Ridge; Dr. Benjamin S. Lewis should make the address of presentation of the bust of Dr. Othniel H. Taylor, and Dr. Daniel Strock the address of acceptance.

The programme of public exercises at the Temple Theatre, as finally arranged, was as follows:

Overture, "Anniversary," - - - - - - *Schlepegrell*
Prayer, - - - - REV. ALBERT G. LAWSON, D. D.
Address of Welcome, - - ALEXANDER MCALISTER, M. D.
Valse, "A la Waldteufel," - - - - - - *Tobani*
Address, "The Medical Profession of Camden County," -
- - - - - - E. L. B. GODFREY, A. M., M. D.
Caprice, "Heather Rose," - - - - - - - - *Lange*
PRESENTATION OF THE BUST OF THE LATE RICHARD MATLACK COOPER, M. D.
Address of Presentation, - - - ONAN B. GROSS, M. D.
Address of Acceptance, - - - JAMES M. RIDGE, M. D.
Selection, "Jay-See-Ko," - - - - - - *Laurendean*
PRESENTATION OF THE BUST OF THE LATE OTHNIEL HART TAYLOR, M. D.
Address of Presentation, - - BENJAMIN, S. LEWIS, M. D.
Address of Acceptance, - - - DANIEL STROCK, M. D.
March "King Cotton," - - - - - - - - - *Sousa*

The arrangements for the banquet in the evening were completed by the Committee of Arrangements unanimously selecting Dr. H. Genet Taylor as toastmaster for the occasion. This position Dr. Taylor declined, but recommended that Dr. Dowling Benjamin be invited to act as toastmaster, in which suggestion the committee unanimously acquiesced.

The Committee of Arrangements received a communication from Mr. Richard H. Reeve, Secretary of the Board of Managers of the Cooper Hospital, extending an invitation to the Society and its guests, to partake of luncheon at the hospital at 1 o'clock on the afternoon of the celebration. The committee accepted this graciously-tendered invitation, and decided to avail themselves of the opportunity thus afforded to utilize the hospital as a background for the group-photograph of the Society.

In accordance with the regular notices and invitations sent out to members and invited guests by the Secretary, Dr. Benjamin S. Lewis, the Society convened at the Cooper Hospital on Tuesday afternoon, February 11, 1896, and were met by the Reception Committee, consisting of Drs. William H. Iszard, William R. Powell and Orange W. Braymer, who introduced the members and guests to the Board of Managers of the hospital, composed as follows: President, Augustus Reeve; Secretary and Treasurer, Richard H. Reeve; David M. Chambers, Rudolphus Bingham, Alexander C. Wood, Peter V. Voorhees, Esq., Richard M. Cooper and H. Genet Taylor, M. D. A pleasant half hour was passed in conversation and examination of the hospital building, following which the Board of Managers ushered their guests into the banqueting room, where an elaborate luncheon was enjoyed. At the conclusion of the repast, the President of the Society called the members to order, and a resolution was offered and unanimously passed, thanking the Board of Managers for their hospitality. Subsequently the members were grouped at an entrance to the hospital and photographed.

The hour having arrived for the public exercises, the members and guests proceeded to the Temple Theatre,

where, in the presence of an audience that filled every available space in the auditorium, the ceremonies attendant upon the celebration proper of the fiftieth anniversary of the Society, were carried out. The sides of the stage were handsomely decorated with palms and potted plants; and conspicuous in the front, at either wing, were the busts of the two deceased members who; fifty years ago, were chiefly instrumental in organizing the Camden County Medical Society, and whose memory, on this occasion, it was designed to publicly and reverently honor. The members and guests met in the green room of the theatre and, under the marshalship of Dr. John F. Leavitt, marched in a body and took seats upon the stage, while the orchestra played an anniversary overture. The exercises were opened by the President introducing Rev. Albert G. Lawson, D. D., pastor of the North Baptist Church, of Camden, N. J., who offered the following

INVOCATION.

Let us pray. O God, our Father, before the worlds were formed, from everlasting to everlasting, Thou art our God; and, blessed be Thy name, more than our God—our Father. Grant that we, who are made in Thy likeness, may recognize and witness the truth that we are children of God. Let Thy blessing come to this Medical Society. We thank Thee for their organization; we thank Thee for the Jubilee year into which Thou hast brought them. Glorify Thy name in their service to man's interests. Give them a holy scorn for sham; give them an earnest purpose always to seek the truth; give them determiniation of heart sufficient to probe until they find the cause of things; give them wisdom to act in such manner as to remove every root and branch of that which causeth injury and suffering; and do Thou grant, O Savior, physician of mind, and of spirit as well as of body, Thy richest grace upon each member of this Society, in his service to humanity, and upon all kindred organizations, that they may hasten the day when every man and woman on the globe shall seek the example of these men, and those of their office, in seeking to restore, to regenerate, to rebuild, to bring men out of weakness

and littleness and suffering into wholeness and power, and honor unto God. In the name of the Father, and of the Son, and of the Holy Spirit, Amen.

At the conclusion of the prayer, the President of the Society, delivered the

ADDRESS OF WELCOME TO THE PUBLIC.

LADIES AND GENTLEMEN: A few days ago I learned, with dismay, that I had been selected to open these exercises in commemoration of the semi-centennial anniversary of the Camden District Medical Society, and while I am fearful as to the consequences upon you, I shall not offer you any apology for my appearance in this relation since I had nothing to do with the selection of myself for this post. While I am here solely in an introductory capacity, I cannot refrain from saying something about the medical profession in general, and this occasion in particular. I shall not pose as a champion for my profession, for it not only needs no champion but is abundantly able to show fruits worthy of commendation. I desire rather to point out what, in my judgment, is the wider influence of the physician, or—in plain English—the physician's place in the community as a socializing and civilizing force.

Few of you will take issue with me when I speak of medicine as a science, but some of you will smile indulgently, or perhaps incredulously, when I claim for medicine pre-eminence among all the sciences. It may seem natural, however, for me, a physician, to make this claim, and I do make it, not so much out of pride in my profession as out of belief that it is justified by the best and greatest results of human research. Let us glance at the results of physiological research: There is scarcely an operation or movement in the human organism that does not exemplify mechanical, chemical and, perhaps, electrical forces, too. These operations of the organism—the mutual dependence, action and reaction of the innumerable vessels, ducts, muscles and nerves, and the close connection of the mental with the physical—show startling analogies between natural truth and revealed truth. There is not a single moral law that is not exemplified and justified by the operations of the human organism. Would you learn whether the universe has a purpose and a design? look at the symmetry and unity of the human frame. Would you learn the great law of religion.

and the secret of social peace, as expressed in the commandment, "Love one another?" gaze upon the mutual dependence and mutual helpfulness of the parts of man's organism. See the economy of power that results from unity of purpose. Would you learn whether there is any retribution on earth for infraction of the moral law? scrutinize with the physician the frame of a man who has given free reign to his passions, and then believe that "Whatsoever a man soweth, that also shall he reap," or, as Huxley expressed it, "The penalty for violation of the moral law is as certain and inevitable as the penalty for violation of physical law." Here, in this mortal frame, see the universe with its purpose, design, unity, system and symmetry; all directed by some great outside Power, from whence emanates the spirit of life.

But, what has all this to do with medicine? you may say. Well, medicine is based upon knowledge of physiology. Man alone, of all God's creatures, needs to study himself in order to preserve or recover his bodily health. None of our untaught faculties, senses or instincts are sufficient guides to good, or guards against evil. The acuteness of our senses is never proportionate to the importance of the things we observe by means of them. We have a keener sense of the temperature of the atmosphere than of its fitness for breathing; yet the temperature affects only our comfort, while the composition of the atmosphere affects our very life. We have a keener sense of hunger than of the fitness of our food. We learn how to preserve our health or get rid of our physical ailments only by experience and the exercise of our understandings. And hence the creation of medicine as a special study, the development of its auxiliary branches, and the voluntary setting apart of a portion of the community for the pursuit of these studies.

It may be urged that physicians do not devote as much time and thought to the prevention of disease as to the cure of it. That claim is without any foundation, in fact, as any intelligent reader knows. Your most active observers and earnest students of sanitary law are physicians. The evils that follow in the wake of great mechanical and industrial improvements are many and terrible, and the physician, with his knowledge of sanitary law, is as necessary to the community as the social scientist and the statesman. This assertion will be better understood when we reflect how surely moral degradation and death thrive under imperfect physical conditions. As the bodies of

men degenerate, so their minds degenerate in moral and physical power. In building up physical conditions, the physician is laying foundations for sound mentality, or providing sound bodies for sound minds, and thus he is a co-laborer with the educator, and he claims equal consideration with the educator from the intelligent public.

And now, having told you why we are proud of our profession, and having given you an intimation of the reasons for our banding ourselves together in medical societies, I bid you all welcome to the fiftieth anniversary of the Camden District Medical Society.

The address was followed by music, by the orchestra, at the conclusion of which the President introduced Dr. E. L. B. Godfrey, the Corresponding Secretary of the New Jersey Medical Society, who delivered the principal address of the occasion, entitled:

THE MEDICAL PROFESSION OF CAMDEN COUNTY, NEW JERSEY.*

MR. PRESIDENT, LADIES AND GENTLEMEN: We are assembled to-day to celebrate the Fiftieth Anniversary of the Camden County Medical Society. Custom has happily designated this occasion as a golden one; and, in this era of change and vicissitude, fortunate, indeed, is that association which is permitted to celebrate its golden anniversary. Yet, in truth,

> "The horologe of Time,
> Strikes the half century with a solemn chime,
> And summons us together once again,
> The joy of meeting not unmixed with pain."

Of the little band who, fifty years ago, first met in the village of Haddonfield and, afterwards, at the old hotel of Israel English at Cooper and Front Streets, Camden, to organize the "District Medical Society for the County of Camden, in the State of New Jersey," as

* The chief facts in this address are taken from the author's "History of the Medical Profession of Camden County, New Jersey," published by F. A. Davis Publishing Co., Philadelphia, January, 1896.

the record quaintly states, not one is present. Doctors Thornton, Risley, Taylor, Cooper, Hendry and Mulford, the pioneers in county medical organization, and the champions of medical progress—alas!

> "They are no longer here; they are all gone
> Into the land of shadows."

One link alone remains between these early meetings and ourselves, in the person of Dr. Daniel M. Stout, who enjoys the double honor of being the first member admitted by election to the District Society, and the senior member on its fiftieth anniversary. The task of historian, assigned to me on this auspicious occasion, is one that, at best, can be but imperfectly fulfilled by mortal pen.

> "The fifty years since first we met,
> Seem to me fifty folios bound and set
> By Time, the great transcriber, on his shelves,
> Wherein are written the histories of ourselves.
>
> What tragedies, what comedies are there:
> What joy and grief, what rapture and despair!
> Whose hand shall dare to open and explore
> These volumes, closed and clasped forevermore?"

My task, however, is to briefly trace the main incidents in the history of the medical profession of Camden County, and to recite the honorable relations which the profession, and especially this Society, sustains to the affairs of the city, county and State, and to the medical world at large. To properly estimate these relations, it is necessary to turn back and consider briefly the forerunners of the present members of the profession, and the circumstances under which they practiced in the district now known as Camden County.

West Jersey had a distinctive settlement. The era of its development was the era of politico-religious ferment in England, which preceded the restoration of the House of Stuart, and witnesses the triumphs of Oliver Cromwell. It was the time when Republican was pitted against Royalist, Puritan against Cavalier, and Protestant against Catholic. In this historic conflict, when all men claimed to be theologians, there arose a new religious sect, under the leadership of George Fox, who promulgated the doctrine of Divine guidance by the Inner Light, and preached "freedom of conscience, purity of life, and the equality of man." Religious persecution drove these peaceful

Friends to America. In the closing half of the seventeenth century they settled in West Jersey,* and established a form of government which, in point of religious and political freedom, surpassed any of that period, save, perhaps, that of the colony of Roger Williams, in Rhode Island. In comparison with the Puritans of New England, the Knickerbockers of New York, the Catholics of Maryland, the Cavaliers of Virginia, the Huguenots of the Carolinas, and the Creoles of Louisiana, their system of government stands unexcelled and their private life unsurpassed. From this migration of Friends, in 1675, dates the civilization of West Jersey. Physicians of prominence came with them, whose deeds of benevolence illuminate, with all the splendor of the "Golden Rule," those pioneer days of struggle, for life or death, with untamed Nature. Chief among the medical men of that period, history points with conscious pride to the eminent physician, Dr. Daniel Wills, whose blood flows in the veins of one of our members whose presence graces this anniversary to-day.

As the civilization of West Jersey developed, the independence of the people increased with the freedom of pioneer life. This people flourished under the influence of American liberty, and when the star of the Revolution arose, resplendent with the fire of patriotism, none contributed more loyal support to the infant government, both in the councils of the nation and in the battalions of the army, than the medical profession of West Jersey.

Following the Revolution, the Medical Society of New Jersey was incorporated, and Old Gloucester County, of which Camden County was then a part, furnished two charter members, in the persons of Dr. Benjamin Tallman, of Haddonfield, and Dr. James Stratton, of Swedesboro. In 1816, district, or county, medical societies were established, and when, in 1844, Camden County† was set apart from Old Gloucester, the profession of the new county embraced the opportunity to organize this Society, whose golden anniversary we meet to celebrate to-day. Scarcely can the outlines of the great work of fifty years be traced in the brief period which your patience permits me to

* Salem, Burlington and Newton were the original settlements of the Friends of West Jersey. Fenwick founded Salem in 1675; Burlington was settled in 1677, and Newton in 1682.

† Camden County was set apart from Old Gloucester County, by legislative enactment, March 13, 1844.

occupy. Your attention is only called, therefore, to the profession in its relations,

1. To medical societies.
2. To medical and charitable institutions.
3. To the public in times of devastating epidemics.
4. To State legislation.
5. To military affairs.
6. To political affairs.
7. To literature and education.

I.—THE RELATION OF THE PROFESSION TO MEDICAL SOCIETIES.

The relationship that the medical profession of Camden County sustains to medical societies—international, national, state and county—is unexcelled by that of any county in the State. The progressive spirit that has kept our Society in close touch with modern scientific methods and insisted upon a firm stand for the dignity and high ideals of professional life, has led to this close relationship. Some of the men who helped to gain this honorable reputation for our Society have passed away, but more remain to join with us in this felicitous commemoration.

Dr. James M. Ridge served as a member of the Fifth International Medical Congress in 1876; Doctors H. Genet Taylor, James M. Ridge, John W. Donges, Onan B. Gross, Alexander McAlister and others, were members of the Ninth International Congress, in 1887, and this Society and the Medical Department of the National Guard of this State, were represented in the Pan-American Medical Congress of 1884, by the appointment of one of your members as a delegate.

The American Medical Association,* whose organization has broadened the foundations and secured the autonomy of the medical profession of the United States, was born in the year following the formation of our County Society, and Doctors Richard M. Cooper and Othniel H. Taylor stood among the sponsors at its christening. Our Society has witnessed, with increasing interest, its growth from infancy to maturity, and Doctors Othniel H. Taylor, Richard M. Cooper, John W. Snowden, Thomas F. Cullen, John V. Schenck, Charles D. Hendry, H. Genet Taylor, James M. Ridge, D. Parish Pancoast, Isaac

* The American Medical Association was organized in Philadelphia in 1847, upon a call issued for a meeting of delegates from medical societies and colleges throughout the United States by the New York State Medical Society.

B. Mulford, Dowling Benjamin, Onan B. Gross, William A. Davis, Alexander McAlister, Howard F. Palm, John F. Leavitt and others, have been enrolled as permanent members and have contributed materially to its success.

In the Medical Society of New Jersey,* the profession of this county has exerted a weighty influence in scientific discussion; in shaping medical legislation and in defining the medical policy of the State. In recognition of this service, Doctors Othniel H. Taylor, Rich-M. Cooper, Thomas F. Cullen, John V. Schenck, John W. Snowden and H. Genet Taylor have received the honor of its presidency; Doctors Isaac S. Mulford, Bowman Hendry, 2d, Richard M. Cooper, Ellis P. Townsend and William H. Iszard have served as members of its Standing Committee; Doctors Thomas F. Cullen, John V. Schenck, H. Genet Taylor, John R. Stevenson, Dowling Benjamin and others of of this body have been appointed Essayists, and the office of Corresponding Secretary is now held by a member of this Society.

In the New Jersey Sanitary Association,† the representatives from this county have proved foremost in their efforts to advance sanitary science. Two members of this Society have served as President, one of whom was Dr. Dowling Benjamin. Dr. Daniel Strock has served as Secretary and Chairman of the Executive Council, and Doctors William A. Davis, Henry E. Branin, Orange W. Braymer, William Shafer, Benjamin S. Lewis, William H. Iszard, James A. Walmsley and others are active members.

In the New Jersey Historical Society,‡ Dr. John R. Stevenson and Dr. H. Genet Taylor are enrolled as members. The Military Order of Surgeons of New Jersey,§ was conceived and carried to successful fruition by a medical officer of the National Guard of this city, who subsequently became President of the Order, and Assistant Surgeon-General of the State. Dr. Daniel Strock is now serving as Secretary, and Doctors H. Genet Taylor, Orange W. Braymer and Wilson Gill Bailey are prominent members.

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* The Medical Society of New Jersey was organized July 23, 1766, at New Brunswick, as a voluntary association, and was incorporated June 2, 1790.

† The New Jersey Sanitary Association was organized at Newark, N. J., October 13, 1875.

‡ The New Jersey Historical Society was organized at Trenton, N. J., January 13, 1845.

§ The Military Order of Surgeons of New Jersey was organized May 12, 1882.

The profession of Camden County has equally distinguished itself in its own home and is a living refutation of the ancient proverb, that "A prophet is not without honor, save in his own country."

The origin and steady growth of the Camden District Medical Society* is owing to the energy and devotion of Doctors O. H. Taylor, R. M. Cooper, C. D. Hendry, I. S. Mulford, J. P. Thornton and J. S. Risley, who effected an organization whose broad foundations will not only uphold the growth of another fifty years, but whose record sparkles with all the brilliancy of modern medical science and surgical art. This Society has watched over and preserved the public health; it has advanced the methods of medical practice; it has elevated the standard of medical education; it has strengthened the reputation of the county in knowledge, character and public spirit, and it has contributed in innumerable ways to the common good.

It exhibits a generous hospitality to the young physician and the "stranger within its gates," by inviting them to its meetings to share both its "feasts of reason," and its more material social banquets. So important to our Society did the "Nestor of our Profession," Dr. Cooper, deem these hospitable, social occasions, that he bequeathed to the Society a legacy of $3,000, for their maintenance. Not less important to its success has been its close affiliation with the State Medical Society and the American Medical Association. Twice has the State Society accepted the invitation of our County Society to meet in Camden; the first meeting occuring during the vice-presidency of Dr. Othniel A. Taylor, in 1849, and the second in 1864, when Dr. Cooper paid the expenses of the entire entertainment.

Time fails me to enumerate the scientific papers and the reports of skillful surgery of its members, and the many instances in which they have distinguished themselves by their progressive spirit and high standard; but the fact that its ranks have furnished the State Medical Society with six presidents, six essayists, five members of the Stand-

* The District Medical Society of the County of Camden was organized at Haddonfield, New Jersey, August 14, 1846, under a warrant from the New Jersey Medical Society, dated May 12, 1846, and issued to the following licensed physicians and surgeons: Jacob P. Thornton, Richard M. Cooper, James S. Risley, Charles D. Hendry, Othniel H. Taylor and Isaac S. Mulford. The following officers were elected at the above meeting: President, James S. Risley, M. D.; Vice-President, Othniel H. Taylor, M. D.; Secretary, Richard M. Cooper, M. D.; Treasurer, Jacob P. Thornton, M. D.

ing Committee and one secretary, speaks volumes for the estimation in which our Society is held throughout the State. Not a little of its high character is due to Dr. H. Genet Taylor, who served as its Secretary for a quarter of a century, and whose resignation was made the occasion for the presentation of a silver service.

The Camden City Medical Society* may well be called the younger sister of the County Society. Between the two organizations there has, necessarily, existed an intimate relation, due to the fact that a majority of the profession belonging to the County Society have been also members of the City Society. Nevertheless, it fills a distinct sphere of usefulness. The growth of the profession in Camden; the interval between the meetings of the County Society; the need of a closer intercourse between the medical fraternity,--all demanded a City Society. It was organized by Doctors Othniel H. Taylor, Lorenzo F. Fisler, Richard M. Cooper, Sylvester Birdsell, Thomas F. Cullen and John V. Schenck, in June, 1853. This Society has enriched the common fund of medical knowledge by its monthly meetings, strengthened the character of the profession by mutual contact, and built up the public health of the city, for which latter purpose it has, on more than one occasion, received plenary powers from City Council, to execute any sanitary measure it deemed needful for the public good. Doctors Richard M. Cooper and Isaac B. Mulford donated to the City Society their valuable medical libraries, by will, and these collections, together with the portraits of Doctors Fisler, Taylor, Cullen, Coates and Robinson, adorn the handsome rooms of the Society, in the building of the Camden City Dispensary.

The Cooper Medical Club,† an organization named in honor of Dr.

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* The Camden City Medical Society was organized in the city of Camden, June 2, 1853, by the following physicians: Lorenzo F. Fisler, Isaac S. Mulford, Othniel H. Taylor, Richard M. Cooper, Thomas F. Cullen, John V. Schenck and Sylvester Birdsell.

† The Cooper Medical Club was organized January 13, 1894. The following gentlemen comprise the membership: Doctors H. Genet Taylor, Alexander M. Mecray, William A. Davis, Dowling Benjamin, Onan B. Gross, Daniel Strock, Joseph H. Wills, George Taylor Robinson, D. Parish Pancoast, John F. Walsh, Harry Jarrett, E. A. Y. Schellenger, Frederick W. Marcy, Joseph L. Nicholson, Paul M. Mecray, Orange W. Braymer, Joseph S. Baer and E. L. B. Godfrey, of Camden; B. W. Macfarland, of Bordentown; J. Howard Frick, of Pleasantville; S. F. Ashcraft, of Mullica Hill; William Martin, of Bristol, Pa.; G. Hudson McCuen, of Philadelphia; J. D. Farrar, of Baltimore, and J. R. Noel, of Chicago.

Richard M. Cooper, and exclusively composed of those physicians who have served, or are now serving, as members of the Cooper Hospital Attending Staff and as Resident Physicians, includes a number of the prominent practitioners of the county, and, though but three years old, has acquired a distinctive position in the community and among the profession.

II.—THE RELATION OF THE PROFESSION TO MEDICAL AND CHARITABLE INSTITUTIONS.

The great charities of the world usually owe their success, and their ability to benefit the public, largely to the direct efforts of the medical profession. This statement applies with particular force to Camden. The Cooper Hospital and the Camden City Dispensary were both established through the direct intervention of physicians, and the various charitable institutions of the city are all, more or less, indebted to the profession for valuable services.

> However much in medicine the doctors disagree,
> They all unite with one accord in deeds of charity.

The Cooper Hospital* was founded through the benevolence, wisdom and forethought of Dr. Richard M. Cooper; it has been enriched by the munificent gifts of the Cooper family, and it bears their honored family name. Although Dr. Cooper died without leaving any specific bequest for hospital purposes, yet his appreciation of the need of a hospital for Camden was so frequently expressed to his family, that his twin brother, William D. Cooper, appointed a Board of Trustees, among whom was Dr. Thomas F. Cullen, to devise a plan for such an institution. An act of incorporation was secured in 1875, after which the Cooper family, with a generosity rarely paralleled, donated the ground upon which the hospital now stands, together with such liberal bequests as to provide, not only for the erection of the building, but also for its future maintenance, without expense to the city. The hospital was fully equipped and opened to the public in 1887, and an Attending Staff was appointed.

Standing in the centre of our city, which it adorns with its spacious lawns and crowns with its imposing architecture, it throws the broad

* The Cooper Hospital was incorporated March 24, 1875, and opened to the public August 11, 1887.

mantle of its protecting charity over the poor and needy, and welcomes yearly to the shelter of its wards and to the skillful ministrations of its staff, more than twelve thousand of the sick and suffering. Of the original staff, Doctors. D. Parish Pancoast, J. Francis Walsh and Joseph H. Wills have resigned, and Dr. George Taylor Robinson has died. The Attending Staff now consists of the following: physicians, Doctors Genet Taylor, Alexander M. Mecray, William A. Davis and E. L. B. Godfrey; surgeons, Doctors Onan B. Gross, Daniel Strock, Joseph L. Nicholson and Orange W. Braymer; gynecologists, Doctors Dowling Benjamin and Joseph S. Baer; obstetrician, Dr. Dowling Benjamin; ophthalmologist, Dr. William R. Powell; pathologist, Dr. Paul M. Mecray. Dr. H. Genet Taylor is also a member of the Board of Trustees. Doctors Harry Jarrett, Frederick W. Marcy, E. A. Y. Schel-lenger, J. K. F. Stites, J. Howard Frick, Rowland I. Haines and Paul M. Mecray have served as resident physicians.

The opening of the Cooper Hospital marked an era in the medical history of Camden County. Previous to 1887, the majority of cases of major surgery were sent to Philadelphia for operative treatment, but after the establishment of the Cooper Hospital, its wards were daily filled, and its staff was confronted with the gravest medical and surgical problems of the day, which have been solved with almost unvarying success. The surgical death-rate of the Cooper Hospital is far below that of the majority of hospitals in large cities, and the percentage of cures, in fever cases, is unsurpassed by any hospital in America. Every facility for practicing the latest treatment in aseptic and antiseptic medicine, surgery and gynecology, has been afforded the staff by the Board of Trustees, whose published reports reflect the highest honor upon the efficiency of the institution, and whose management illuminates, with its wise benevolence and unstinted charity, the dark depths of suffering among the poor of our city.

Following the close of the Civil War, the surplus funds of the North Ward Bounty Association* were devoted to the founding of a dispensary, through the efforts of Colonel Thomas McKeen and Mr. Samuel B. Garrison. Such an institution had long been a favorite project of the profession of Camden, and the opportunity offered was quickly utilized.

* The North Ward Bounty Association was organized in Camden, December 9, 1864, to provide substitutes for those unable, or unwilling, to enter the United States Army.

In 1866 the Camden City Dispensary* was instituted and incorporated in 1867, with the following members: Doctors Othniel H. Taylor, Isaac S. Mulford, Richard M. Cooper, Lorenzo F. Fisler, Thomas F. Cullen, John V. Schenck, William S. Bishop, Alexander Marcy, Bowman Hendry, 2d, James M. Ridge, H. Genet Taylor and John R. Stevenson. Dr. Othniel H. Taylor was elected President; Dr. Lorenzo F. Fisler, Vice-President; Dr. John R. Stevenson, Secretary, and Dr. Richard M. Cooper, Treasurer. For twenty-nine years the Dispensary has afforded inestimable relief to thousands of the suffering poor of Camden. It is impossible to give the long list of physicians who have served upon its Board of Managers, its Attending Staff and as district physicians and internes. Especial mention should be made, however, of the long and valuable service of President Maurice Browning, who has occupied the chair since 1887; of Dr. H. Genet Taylor, who has filled the office of Secretary since 1875, and of the late Othniel G. Taylor, who was pharmacist of the Dispensary from its organization until 1886, a period of twenty-one years. City Council has made annual appropriations to the Dispensary for the relief of the indigent sick, since 1869, and the institution has received legacies from Dr. Richard M. Cooper and several members of the Cooper family. Doctors Thomas F. Cullen and Alexander Marcy have served as Presidents, and Dr. Cooper was Secretary from 1868 to 1875.

With the Camden Home for Friendless Children,† the West Jersey Orphanage,‡ and the Camden Day Nursery,§ the physicians of the county have been prominently connected. Doctors H. Genet Taylor,

*The following physicians and surgeons comprise the Consulting and Attending Staff of the dispensary for 1896: Consulting Staff, physicians, H. Genet Taylor, A. M. Mecray, W. A. Davis, J. M. Ridge and E. L. B. Godfrey; surgeons, O. B. Gross, J. H. Wills, Daniel Strock, O. W. Braymer and W. R. Powell. Attending Staff, physicians, J. G. Doron, M. M. Osmun, W. W. Kain and M. K. Mines; surgeons, J. F. Stock, E. D. Phelan, F. L. Horning and P. M. Mecray; gynecologists, B. S. Lewis, G. E. Kirk, L. B. Hirst and Amy Ames; oculists and aurists, Robert Casperson, F. N. Robinson and E. A. Y. Schellenger; dermatologist, etc., W. E. Miller, F. N. Robinson and R. I. Haines; pathologist, W. S. Bray; district physicians, W. H. Pratt and W. E. Miller; microscopist, W. S. Bray, and pharmacist, T. J. W. Phillips.

† The Camden Home for Friendless Children was incorporated April 6, 1865.

‡ The West Jersey Orphanage was chartered in 1874, and opened for the reception of colored children, February, 1875.

§ The Camden Day Nursery Association was organized April 14, 1890.

William R. Powell, George Taylor Robinson, Alexander McAlister, Orange W. Braymer, E. A. Y. Schellenger, John G. Doron, William H. Pratt and Joseph L. Nicholson have given their services to the Children's Home; Doctors Isaac B. Mulford, Sophia Presley and Alexander McAlister have performed valuable services for the Orphanage, and Dr. Dowling Benjamin for the Camden Day Nursery.

III.—THE RELATION OF THE PROFESSION TO THE PUBLIC IN TIMES OF DEVASTATING EPIDEMICS.

It is said that the darkest cloud has always a silver lining, and through the murky mists of noisome pestilence there often shines, with radiant glow, the noble self-sacrifice, fearless courage and tireless devotion of heroic doctors and undaunted nurses. Six times have the heavy shadows of epidemic fevers hung heavy over our devoted county, and on each occasion, the brave devotion to duty of our professional brethren has stayed the hand of the avenging angel and withheld from greedy Death the greater portion of his intended victims.

Previous to the erection of Camden County, Dr. Othniel H. Taylor, then a resident of Philadelphia, rendered such effective service to the government of that city, in the cholera epidemic of 1832, that he was rewarded with a service of silver for "intrepid and distinguished service." In the cholera epidemics of 1832, 1849 and 1854, the medical profession of Camden County won golden opinions from both city officials and the people, but it remained for the cholera epidemic of 1866 to obtain for our profession the confidence of the municipal government of Camden to such an extent that the City Medical Society was given plenary powers over sanitary matters within the city, and was "authorized to execute any measure deemed needful to resist an invasion of cholera." Dr. John R. Stevenson served as chairman of the committee to execute this measure, and so effective was the service rendered that but thirty-nine cases of the malady occurred in Camden, when it was disastrously present in other parts of the State.

In 1871, an epidemic of small-pox occurred in Camden, in which there were more than one thousand cases. The sanitary committee of City Council took charge of the epidemic; erected a small-pox hospital and placed it under the supervision of Dr. Randal W. Morgan, who did more than any one to subdue the epidemic, and received the grateful praise of both the profession and the people of

the county. In 1880, small-pox again broke out in Camden and assumed the character of a general epidemic, in which six hundred and eighty-eight cases were reported. During the year 1880, and up to July, 1881, one hundred and forty-four deaths from small-pox in Camden were recorded in the office of the State Board of Health. Vaccination and quarantine were tardily enforced; our municipal authorities seemed unable to recognize the importance of the epidemic and permitted five months to pass before erecting a temporary hospital. The epidemic began in February and the hospital was erected in July, after repeated requests from the physicians. In this epidemic, Doctors Clarence M. Schellenger and John W. Donges did noble work. Dr. Schellenger took charge of the hospital, under the supervision of the sanitary committee of City Council, and Dr. Donges at this supervised the transportation of subjects to the hospital. Dr. Donges, time, was a member of City Council, and so highly were his services appreciated, that Council, in April, 1881, passed and ordered engrossed, resolutions reciting their appreciation of his services and their heartfelt thanks "for his indefatigable, self-sacrificing and successful efforts to obliterate the loathsome disease that infested our city."

During this year, also, the most extensive epidemic of typhus fever that Camden county has ever known, broke out at the Almshouse, at Blackwood, where one hundred and three of the inmates were stricken, a condition largely due to the over-crowded buildings and imperfect system of ventilation. Doctors Joseph W. McCullough and Henry E. Branin were the physicians in charge. Breathing out a contagion of deadly virulence, this epidemic stalked forth, at noon-time and midnight, and smothered in its murderous embrace, not only three-score, unremembered paupers, but also the steward, the matron and several assistants, and, most calamitous of all, the gallant physician, Dr. McCullough. Entering upon this battle with disease, with a courage that knew no danger and with a skill that feared no defeat, just as he was about to drive back the invader and grasp the laurels of victory, this brave physician, Dr. McCullough,

> "The young and strong, who cherished
> Noble longings for the strife,
> By the roadside fell and perished,
> Weary with the march of life."

The vacancy caused by the death of Dr. McCullough was filled by Dr. Joseph E. Hurff, who, with Dr. Henry E. Branin, carried the issue to triumphant victory. In recognition of the distinguished services of

these gentlemen, the Camden County Medical Society, in 1884, passed resolutions "expressive of their bravery, skill and devotion to duty, during the deadly epidemic."

Let me pause here a moment. It may be difficult for some to understand the courage, the devotion and the self-sacrifice involved in facing the dangers of these epidemics. To attend typhus fever continually means death in the majority of instances, and death in its most unrelenting form. You stand in admiration of the soldier who, in the midst of battle,

"Seeks the bubble reputation at the cannon's mouth."

You look with wonder upon the sailor who, in storm and battle,

"Sings of the dangers of the sea."

You hang with ecstasy upon the lips of the statesman who speaks with golden tongue,

"The applause of listening Senates to command!"

You appreciate the efforts made to perpetuate the memory of soldier, sailor and statesman in enduring brass or monumental marble, but the man who, in the silent watches of the night, amid the noiseless yet deadly contagion of pestilence, went from cot to cot, from ward to ward, with "an eye keen as an eagle's, a heart bold as a lion's, and a hand gentle as a woman's," unmarked by the heedless multitude, though tenderly watched by omniscient God—what have you done to honor him? The dead are past our help and past our praise. Nothing that we can do will add to their glory or detract from their fame. But the medical profession owe it to themselves, the Board of Freeholders owe it to justice, the people of Camden County owe it to humanity, to erect a tablet at the almshouse to perpetuate the heroic services of Dr. Joseph W. McCullough in this devastating epidemic.

In 1895, an epidemic of diphtheria arose at the West Jersey Orphanage and infected nineteen of the inmates. Dr. Alexander McAlister, the physician in charge, alive to the importance of the occasion and familiar with the discoveries of modern medical science, promptly employed the famous antitoxin treatment. The results were extraordinarily successful, a cure having been effected in every case in which the antitoxin was administered.

IV.—THE RELATION OF THE PROFESSION TO STATE LEGISLATION.

In matters of medical legislation within the State, the profession of this county has taken an active interest. In 1849, Dr. Othniel H.

Taylor delivered an address before the State Medical Society, urging the adoption of still higher ideals in its censorship over applicants for admittance to the profession. This address became historic in the annals of medical legislation in New Jersey, and excited the most vigorous opposition from medical colleges of New York and Philadelphia, which, however, secured, in 1854, a legislative Act admitting their graduates to medical practice within this State without examination and license from the State Medical Society. A special meeting of the State Society was called, chiefly at the request of this Society, to adopt measures asking the Legislature for a repeal of the law in the interest of higher medical education. In this meeting, Dr. Othniel H. Taylor, as a Fellow, and Dr. Richard M. Cooper, as a member of the Standing Committee, took leading parts. The request was denied by the Legislature. In 1866, the State Society was reorganized, its examining privileges surrendered and a new charter was secured. Dr. Cooper served on the Committee on Reorganization. From 1854 to 1880, no restrictive measures existed in this State over medical practice, but in the latter year illegal medical practice was made a misdemeanor. It remained for the establishment of the State Board of Medical Examiners, in 1890, in the institution of which Doctors Dowling Benjamin and Onan B. Gross took an active part, and of which a member of this Society is now Secretary, to clear New Jersey of charlatans and quacks.*

* In 1772 the Medical Society of New Jersey secured a colonial enactment, providing for the licensing of physicians by Justices of the Supreme Court, of the Colony of New Jersey, after an examination by a Board of Physicians selected by the Court. This was the first medical law enacted within the Colony of New Jersey. In 1783, this law was re-enacted by the State of New Jersey, and, in 1790, the Medical Society of New Jersey was incorporated. In 1816, the Society was re-incorporated, and provision was made for District Societies and for the nomination of censors in District Societies; for the examination of applicants for medical license, and the granting of their license by the President of the State Society. In 1818, the censors were made the appointees of the State Society. In 1830, the former method of appointing censors was adopted. In 1844 four censors were appointed for each District Society, for the examination of medical candidates. In 1866, the State Society was reorganized, and the censors abolished, because of the liberality of the medical enactments of 1851 and 1854. From 1866 to 1880, there were no legal restrictions governing medical practice in New Jersey. In 1880, registration of diplomas was required in the office of the County Clerks, who, in 1883, were required to make annual returns of such to the State Board of Health. In 1890, the State Board of Medical Examiners was established.

V.—THE RELATION OF THE PROFESSION TO MILITARY AFFAIRS.

During the Civil War, the medical profession of Camden County rendered the Government efficient service, both in the battalions of the Army and in the squadrons of the Navy. In this great conflict, through which the sovereignty of the National Government became a settled fact, New Jersey was not only the first State to place a brigade of troops at the disposal of President Lincoln, but also contributed more than any other State, at that time, (1861), and in that particular, to the support of the Federal cause. The first gun of the Confederacy was fired at Fort Sumter, April 12, 1861. The first call of the President upon the loyal States for troops was made on April 15, and scarcely had its echo died away ere the trained battalions of the New Jersey Brigade were organized,* and marshalled at Washington, under the panoply of "grim-visaged war," where, by the majesty of their presence, they drove back the traitors to "the Old Virginia shore." The Army of the Potomac was organized under command of General Scott; entered Virginia May 24; engaged the Confederates at Bull Run, June 1, and met with almost ruinous defeat. In this engagement, the New Jersey Brigade was held as a reserve. The Fourth Regiment was commanded by our distinguished townsman, Colonel Matthew Miller, on whose staff Dr. Elijah B. Woolston, our *confrère*, served as major and surgeon. During the enlistment of the brigade, Dr. Woolston acquired the martial spirit that subsequently led to his appointment on the staff of the United States Military Hospital, at Beverly.†

Following the battle of Bull Run, the giant monster of Rebellion stretched forth its sanguinary arms to embrace the whole country. The Government became appalled at the magnitude of its task, and requisition after requisition for troops was made by the President upon the loyal States. Filled with a patriotism that drew its inspiration from the historic fields of Princeton, Trenton and Monmouth, New Jersey responded with alacrity to the Federal demand, and began the organization of the First and Second Brigades, whose prowess has made our State forever famous. The rapid growth of the Rebellion demanded a stronger and firmer hand to direct the Federal forces and

* The New Jersey Brigade was organized April 27, and reported for duty, under General Runyon, at Washington, May 6, 1861.

† The United States Military Hospital at Beverly was established June 29, 1864, with 2,560 beds, and maintained until August, 1865.

General Scott, the aged chieftain of the Mexican War, was succeeded in the command of the Army of the Potomac by General George B. McClellan. The army was reorganized; brigades were combined into divisions and divisions into corps, and, in March, 1862, the march to Richmond began by way of the Peninsula between the York and James Rivers. The Peninsular campaign surpassed, in its hardships and severity, any that had preceded it upon this continent. Who can recite the terrors of the march from Yorktown to Malvern Hill, or tell the story of those seven days of continuous battle? History applauds the discipline and bravery of the legions of McClellan; yet, marvellous to relate, this army fled in dismay before the enemy, when in sight of the domes of the Confederate Capitol. Partly because of this unfortunate issue, and also from a desire to protect the Federal Capitol, President Lincoln recalled the army of McClellan to the vicinity of Washington, and the Peninsular campaign, so auspiciously begun in April, ended in failure in July.

In this campaign the surgeons from Camden County rendered important service. In the First Brigade, Fourth Regiment, Dr. Bowman Hendry, 3d, served as first lieutenant and assistant surgeon. In the Second Brigade, Eighth Regiment, Dr. Alexander J. McKelway served as major and surgeon, and Dr. H. Genet Taylor as first lieutenant and assistant surgeon, and in the Fifth Regiment, Dr. O. S. Belden served as first lieutenant and assistant surgeon. In addition to these, Dr. Joseph W. McCullough, of the First Regiment, Delaware Volunteers; Dr. James A. Armstrong, Seventy-third Regiment, Pennsylvania Volunteers, and Dr. D. H. Bartine, One Hundred and Fourteenth Regiment, Pennsylvania Volunteers, served as first lieutenants and assistant surgeons in their respective regiments, and Dr. Peter V. Schenck served as first lieutenant and assistant surgeon in the regular army, and during the war was brevetted captain, and also major, for faithful and meritorious services on the field.

During the occupancy of the Peninsula by the Army of the Potomac, the forces in front of Washington were commanded by General John Pope, who, after the evacuation of the Peninsula, was re-enforced by the divisions of McClellan. Pope at once began an aggressive campaign, with "headquarters in the saddle," and sustained such repeated defeats at Bristow Station, Bull Run and Chantilly, that he withdrew his forces within intrenchments in the vicinity of Alexandria. In this campaign of General Pope, Major Alexander J. McKel-

way, Lieutenants H. Genet Taylor, Bowman Hendry, 3d, O. S. Belden, James A. Armstrong, D. H. Bartine, Joseph W. McCullough, and Lieutenant Bowman Hendry, 2d, of the Sixth Regiment, Second Brigade, rendered distinguished service. Dr. D. Parish Pancoast served, at this time, as a contract surgeon at Fortress Monroe.

The defeat of General Pope led to the consolidation of the Armies of the Potomac and of Virginia, and General McClellan was placed in supreme command. Notwithstanding this, General Robert E. Lee, the Confederate chieftain, flushed with his repeated victories, boldly invaded Maryland in September, and, on the 17th, met defeat at Antietam. In this battle, the Camden County surgeons previously named participated with their regiments, excepting Lieutenant H. Genet Taylor who, at this time, was a prisoner within the Confederate lines, having volunteered to remain with the Union wounded at Chantilly. Failing to press his advantage by permitting Lee to escape into Virginia, McClellan was, in consequence, superseded by General A. E. Burnside.

The campaign of Burnside also proved one of failure and disaster. Advancing against the Confederates in October, he met them in battle at Fredericksburg, December 11 and 12, and sustained defeat with terrific loss. In this engagement, Major Alexander J. McKelway, Major James A. Armstrong, promoted in the previous October, Lieutenants H. Genet Taylor, Bowman Hendry, 2d, Bowman Hendry, 3d, D. H. Bartine and Lieutenant Thomas G. Rowand, assistant surgeon Twenty-fourth Regiment, N. J. V., participated. Dr. John W. Donges, who served as as a private in the Pennsylvania Volunteers, was wounded at the battle of Fredericksburg and incapacitated for further action. After this battle, Lieutenant Taylor was detailed by General Hooker as surgeon-in-charge of the Artillery Brigade, Third Corps.

The failure of Burnside led to the placing of General Joe Hooker in command of the army, January 28, 1863, who crossed the Rapidan in April; engaged the Confederates at Chancellorville on the 30th, and was driven back with great loss. The flank movement of General Stonewall Jackson in this engagement renders it one of the most conspicuous in the war. The Camden County surgeons who have been mentioned, again participated in the din of battle and afterwards, Lieutenant Rowand was detailed for duty at the Second Corps Hospital, Potomac Creek, where he remained until mustered out of service in June.

Flushed with his victories at Fredericksburg and Chancellorville, Lee invaded Pennsylvania and met with defeat at Gettysburg, July 1st to 4th, by General George G. Meade, who had succeeded Hooker in command on the very eve of battle. This battle was the high water mark of the Rebellion and, following the retreat of Lee, there were no extensive engagements until General Grant took command in the following year. At Gettysburg, and in the minor engagements after it, the Camden County surgeons, whose names have brought such honor to our profession, were in action. The closing conflict of the war was inaugurated on March 2, 1864, when General Grant was appointed Commander-in-chief of all the Union armies. On May 3, the march to Richmond was begun and there followed the battles of the Wilderness, Spottsylvania, Cold Harbor and Petersburg, which stand unparalleled in history for martial daring, and finally, the surrender of the Confederacy at Appomattox, April 9, 1865. Only three of the Camden County surgeons participated in the Grant campaign, viz.: Lieutenants Bowman Hendry, 2d, Bowman Hendry, 3d, and Lieutenant Duncan W. Blake, of the Fourth Regiment, First Brigade, N. J. V., who was commissioned first lieutenant and assistant surgeon in the spring of 1865. Lieutenant Blake was present at the surrender of Lee at Appomattox and witnessed the downfall of the Confederacy, after which he took part in the grand review of the Army of the Potomac before the President, at Washington, which was the closing act in the drama of the Rebellion.

In the United States Navy, Camden County was represented by four medical officers who served with distinction during the Civil War: Dr. William S. Bishop, passed assistant surgeon; Dr. Richard C. Dean, assistant surgeon, who was recently retired as a medical director; Doctors Charles W. Sartori, assistant surgeon, and Henry Ackley, assistant surgeon, rendered important and distinguished services. During the Civil War, a number of our surgeons served as medical cadets, among whom were Doctors Alexander M. Mecray, H. A. M. Smith, John R. Haney and William H. Iszard, while Dr. John R. Stevenson served as first lieutenant and assistant surgeon to the commission appointed under the Conscription Act.

Previous to the Civil War, the militia of New Jersey consisted of four divisions, each under the command of a major-general. At this period, Dr. Elijah B. Woolston served as a division surgeon and was one of the first to offer his services in the call for troops by the

Government, in the dark days of 1861. Following the war, the militia of the State was organized (1869) into the present National Guard, whose efficiency is a subject of just pride to the State. In this reorganization, Dr. H. Genet Taylor was commissioned major and surgeon of the Fifth Battalion, on the staff of Major E. J. Jackson, and, in 1870, when the battalion was organized into the Sixth Regiment, under the command of Colonel James M. Scovel, Major Taylor was re-commissioned surgeon and Dr. J. Orlando White was commissioned first lieutenant and assistant surgeon. The Sixth Regiment has served as a school for military and professional instruction to a number of surgeons of this county. Six surgeons have served upon the staff of its commanding officers; three are now serving and two have been warranted as hospital stewards. Of the eleven surgeons who have been connected with the regiment, one has been promoted to the rank of assistant surgeon-general of the State with the rank of colonel; Major Isaac B. Mulford and Lieutenant George Taylor Robinson have died; Major H. Genet Taylor and Lieutenants J. Orlando White and Dowling Benjamin have resigned, and Sergeant Levi B. Hirst has been honorably discharged after ten years of service as hospital steward. Of the present staff, Major Daniel Strock holds the position of major and surgeon; Lieutenants Orange W. Braymer and Wilson Gill Bailey, of first lieutenants and assistant surgeons, and Eugene E. De Grofft, of hospital steward.*

Following the close of the war, none contributed more to keep alive the memories of the strife, or the principles for which they contended, than the medical officers of the army. It was a surgeon who conceived and put into execution the principles of the Grand Army of the Republic; it was a surgeon who instituted the Order of the Loyal Legion; it was a surgeon, the late Lieutenant G. S. F. Pfieffer, of this city, who organized the Sons of Veterans. Majors H. Genet Taylor and D. H. Bartine are members of the Order of the Loyal Legion; Majors James A. Armstrong and H. Genet Taylor, Lieutenants D. W. Blake and John R. Stevenson are enrolled in the Grand Army of the Republic; Doctors J. H. Haley and Eugene E. De Grofft belong to the Sons of Veterans; H. Genet Taylor and

* Since the above was written, Dr. Joel W. Fithian has been commissioned first lieutenant and assistant-surgeon of Gatling Gun Co. B., N. G., N. J., on the staff of Captain John R. Jones.

Dowling Benjamin, to the Sons of the Revolution, and H. Genet Taylor, Daniel Strock, Orange W. Braymer, Wilson Gill Bailey and E. L. B. Godfrey, to the Order of the Military Surgeons of New Jersey.

VI.—THE RELATION OF THE PROFESSION TO POLITICAL AFFAIRS.

In the broad domain of politics, municipal, county, state and national, the physicians of Camden County have taken an active and influential part, and their activity has redounded both to the glory of the State and to the welfare of mankind. Deeply interested in municipal government and possessed of a wide personal popularity, Dr. Lorenzo F. Fisler was first honored with the mayoralty of Camden in 1840, and rendered such efficient service to the city that he was nominated for the same office twelve times, seven of which he was elected, his competitor in 1851 being Dr. Othniel H. Taylor. Dr. Fisler was the first physician elected a member of City Council, in which body he has been ably succeeded by Doctors Charles W. Sartori, Philip W. Beale, William S. Jones, Benjamin S. Lewis and John W. Donges, the last named having served as president.

A more permanent and far-reaching influence has been exercised by the profession in the organization and the development of the public school system. Believing that the education of the youth of our city and county, at the public expense, would afford a broad and firm foundation upon which the magnificent superstructure of equality of rights and liberty of thought and action could be reared, the profession early laid the corner-stone of the temple of knowledge, and how firm its foundation and how imposing its structure, let a grateful public tell. Previous to 1842, the public schools of New Jersey were supported by an apportionment of the State funds among the different counties. In that year, an Act of Legislature was secured, chiefly through the instrumentality of Dr. Isaac S. Mulford, providing and authorizing the inhabitants of townships to raise money, by direct taxation, in addition to the State apportionment, for public school purposes. This was practically the beginning of the public school system in this State. Great indeed have been the results of this enactment! The numerous and substantial public school buildings you behold today in every hamlet and city of the State, over whose walls floats the graceful and imperishable emblem of American liberty, and the modern methods of teaching which have enabled our boys and girls to take the front rank in the struggle of life, unmistakably attest

the wisdom of this act. In 1843, the public school system was inaugurated in the township of Camden, largely through the influence of Dr. Isaac S. Mulford, and a Board of School Trustees was organized, of which he became President in 1845. In 1852, also through his endeavors, the School Board of Camden was made a separate factor in the city government, the wisdom of which action no one can question. The efforts of Dr. Mulford did not pass unnoticed by his fellow-citizens; he was not only honored by an appointment on the State Board of Education, but his memory has been perpetuated in the name of the "Isaac S. Mulford Grammar School." In 1852, the Board of Education of the city of Camden was organized, in which Doctors Charles W. Sartori, Maximilian West, Henry H. Davis, John R. Haney and Dowling Benjamin have rendered efficient service, while Doctors Thomas G. Rowand, Sylvester Birdsell and James M. Ridge have been called to preside over its deliberations, and Dr. Alexander M. Mecray to superintend its teaching force.

With equal earnestness, the profession of Camden County have toiled unceasingly for the public good in matters pertaining to the public health. The establishment of a State Board of Health was urgently demanded by the great progress of sanitary science and the necessity for diffusing sanitary information among the general public. On May 22, 1877, a State Board was instituted, and Governor Bedle appointed Dr. James M. Ridge one of its members. The Board immediately took a wide interest in the sanitation of the State; began a campaign of education among physicians, sanitarians and the public at large, and enlisted the interest of all allied callings in its efforts. It has succeeded in remodeling the sanitary laws of New Jersey; in establishing local boards of health in every section of the State, and in elevating the standards of public safety in health matters. In 1880, it rendered important service to Camden County during the epidemic of typhus fever at the Almshouse, and the small-pox epidemic in Camdem. In consequence of this service, most of the townships in this county organized local boards of health, in 1882, but Camden remained independent until 1886, notwithstanding the repeated requests of the County and City Medical Societies for the organization of a city board of health, under the State laws. This indifference in Camden to sanitary matters led to the appointment of Dr. Onan B. Gross, by the State Board of Health, as Sanitary Inspector, in 1884, and his report was so overwhelmingly in favor of organization under

the State laws, that the Sanitary Committee of City Council made a report to the State Board of the condition of Camden that year. In 1885, a joint meeting was held between the Sanitary Committee of Council and a committee from the City Medical Society, which resulted in the organization of a Board of Health, in 1886, under the State laws of 1880. This board has greatly improved the sanitary arrangements of Camden and has contributed, in a high degree, to the public weal. Doctors John W. Donges, Benjamin S. Lewis. William Shafer and Sylvan G. Bushey have been, or are now, active in its membership, while Doctors James A. Walmsley, Duncan W. Blake and John K. Bennett, in the board of Gloucester City; John R. Stevenson and William B. Jennings, in the Haddonfield board; D. H. Bartine and John W. Marcy, in the Merchantville board, and Joseph H. Hurff, Philip W. Beale, William S. Long and William B. Jennings, in various township boards, have rendered efficient service.

In 1890, the lax medical laws of New Jersey were repealed and, on May 22, a new law was enacted, providing for a State Board of Medical Examiners, to examine and license all physicians desiring to practice in the State, who had not registered previous to the passage of the law. This Board has done more to build up the standard of the medical profession in the State than any other influence, until to-day, New Jersey stands unsurpassed among the States in medical education. Camden County is represented on this Board in the person of its Secretary.

In the local political interests of Camden County, our profession has been well represented. For ten years following the organization of the county, the office of Coroner was held by laymen. The fact then became recognized that physicians alone should fill this public office, because of the medical knowledge required to determine the cause of death, as well as the knowledge required to determine the force of relating evidence. In 1854, Dr. Thomas G. Rowand was elected Coroner of the county, and since then Doctors Duncan W. Blake, James A. Armstrong, William H. Iszard, Philip W. Beale, Edwin Tomlinson, Henry H. Davis, George W. Henry, James G. Stanton, Edwin R. Smiley and Ahab H. Lippincott, have graced the position with becoming dignity.

In 1860, when the evolution of politics gave a triumphant force to the Republican party, (in the exposition of whose principles Dr. Sylvester Birdsell was one of the pioneers in this county), Dr. Birdsell

presided at the first county convention of that party, at Haddonfield, and heralded with conscious pride its ratification of the platform to the national leaders of the party.

In 1876, the "Act Respecting County Physicians" was passed, which gave county physicians precedence and authority over coroners and justices of the peace, in the investigation of casual, accidental or violent deaths. This position was first held by Dr. Randal W. Morgan, and has since been ably filled by Doctors William H. Ireland, Onan B. Gross, William H. Iszard and William S. Jones, the present incumbent. With the Almshouse and Asylum, Doctors Joseph W. McCullough, Henry E. Branin and Joseph E. Hurff have long been connected, and their invaluable services to the county have been previously related.

In the political affairs of the State, Dr. Isaac S. Mulford took part as a member of the State Board of Education; Dr. Richard M. Cooper, as a member of the State Sanitary Commission of 1866 and the Public Health Commission of 1874; Dr. James M. Ridge, as a member of the State Board of Health; Dr. George W. Henry and Dr. William H. Iszard, as members of the Legislature, and Dr. E. L. B. Godfrey, as a member of the State Board of Medical Examiners.

In national politics, the profession of Camden County, in 1852, furnished a candidate for Vice-President of the United States. Because of the influx of emigrants in 1837, Dr. Reynell Coates helped to form the Native-American Party which advocated the rights and privileges of Americans as opposed to those foreigners, and demanded a residence of twenty-one years in this country as a qualification for naturalization. In 1845, this party held its first national convention, and Dr. Coates wrote its platform.* In the national campaign of 1852, when slavery and Americanism, Whigs and Democrats, wrestled for national supremacy, and four great political parties marshalled their forces to secure the Presidency, Dr. Coates became a candidate for Vice-President of the United States, with Daniel Webster as President, on the Native-American ticket. During the campaign, Daniel Webster died and the party, therefore, did not carry a single State. The contest was, however, one of great excitement, owing to the importance of the issues involved. Pierce and King, the Democratic candidates, were elected and, under

* "Origin and Progress of the American Party in Politics," by J. H. Lee.

the overshadowing interest of slavery, the Free-Soil party passed out of existence, the Native-Americans degenerated into a secret political organization called the Know-Nothings, and the Whigs were incorporated in the new Republican party which, in the next national campaign, proved the chief rival of Democracy. Since that time, but one of the members of our profession has essayed the honors of national politics, viz.: Dr. William T. Collins, who became a presidential elector on the ticket supporting the greatest military chieftain of modern times, Ulysses S. Grant.

VII.—THE RELATION OF THE PROFESSION TO LITERATURE AND EDUCATION.

In the department of literature, there are members of our profession in this county who have attained distinction and even national renown. Their productions are naturally divided into technical and general. Under the term technical, may be classed the papers, essays and addresses of a professional nature, and, in this direction, Doctors Othniel H. Taylor, Richard M. Cooper, Thomas F. Cullen, John V. Schenck, John W. Snowden and H. Genet Taylor have delivered addresses as Presidents of the State Medical Society; Doctors Dowling Benjamin, Daniel Strock, Orange W. Braymer and E. L. B. Godfrey, as members of the New Jersey Sanitary Association, and Doctors Thomas F. Cullen, John V. Schenck, John R. Stevenson, H. Genet Taylor, Dowling Benjamin and E. L. B. Godfrey, as regularly appointed essayists of the State Medical Society, while Doctors James M. Ridge, Alexander Marcy, Alexander M. Mecray, Henry E. Branin, Onan B. Gross, Alexander McAlister, Charles H. Shivers, William S. Long and others have contributed papers to the Transactions of that august body. In the medical periodicals of the day, Doctors John R. Stevenson, Onan B. Gross, Dowling Benjamin, Daniel Strock, Joseph H. Wills, John F. Walsh, William S. Jones, Orange W. Braymer, Alexander McAlister, Joseph S. Baer and others have contributed articles, while in the County and City Medical Societies such frequent opportunities are afforded for the exercise and development of literary and oratorical gifts, that the majority of the members have made use of them with highly creditable results.

In general literature, the medical profession of the county has attained distinction in the fields of history, poetry, fiction, politics, science and the drama. In 1848, Dr. Isaac S. Mulford published a

"History of New Jersey," in a volume of five hundred pages, which is the most important and comprehensive work that has, as yet, emanated from the pen of a Camden County physician. The work represents extensive research and a wide fund of information. It is an accepted authority in State history and stands as a monument to the high literary talent and varied abilities of the author. In addition to this, Dr. Mulford wrote an elaborate treatise on "Forensic Medicine in New Jersey."

In 1858, that brilliant and versatile genius, Dr. Lorenzo F. Fisler, found time between his arduous duties as a physician, politician, preacher and lecturer, to write a "History of Camden." This work was published in pamphlet form and contains much valuable information regarding the early period of our city, which the writer, from his unusual advantages in the public service, had an opportunity of acquiring. The lectures of Dr. Fisler were highly popular, and evinced considerable literary training and historical knowledge. The best known of his lectures were those on "Queen Victoria" and "Witchcraft."

In addition to numerous professional speeches and medical papers, Dr. Othniel H. Taylor, whose ready and versatile pen was constantly employed in behalf of his profession, wrote a treatise on "The Topography of Camden County." In 1871, Dr. Richard M. Cooper prepared an interesting history of this Society for its twenty-fifth anniversary, which was read before the Society but was not published. Dr. Thomas F. Cullen, who wielded a trenchant and witty pen, not infrequently guided by keen and delicate satire, essayed the sister arts of music and the drama and contributed original productions to both. Dr. Reynell Coates won the choicest laurels in the field of letters. Around his brow were garlanded the blossoms of both prose and verse, and as a poet and novelist, essayist and scientist, he won the favor of the Nation in the brilliant productions of his fertile and prolific brain.

Nor are all the distinguished literati of the profession numbered among those who have crossed the boundary of life and entered the Elysian fields. The Muse of History has still her worshippers in the present generation of Camden County physicians, and foremost among these is Dr. John R. Stevenson, whose "History of Medicine and Medical Men in Camden County," published as a chapter in Prowell's History of Camden County, has received the highest encomiums

for its evident research and valuable information. Dr. H. Genet Taylor has written a history of the Camden City Dispensary which recites in a graphic manner the circumstances connected with the founding of that institution, in 1865, until the dedication of the present building, in 1892. Nor should the eminent achievements of our honorary members be omitted. Dr. Joseph F. Garrison obtained the highest honors of the Church, and Dr. Charles G. Garrison has won the highest honors of the State. In the realm of health and beauty, Dr. Dowling Benjamin has written a forcible treatise on "What is Beautiful in Style and its Relation to Health." The recent issue of the "The History of the Medical Profession of Camden County, New Jersey," may also be accredited to a member of this Society. This history is published in a bound volume of three hundred and eleven pages. It reviews the colonization of West Jersey, the medical and sanitary history of New Jersey, and considers the medical profession of Camden County in its professional, social, political, military, educational and literary relations to the public. To the same author may also be ascribed "The Discovery of Vaccination by Edward Jenner," "The American Physician in Literature," "The History of Sanitation in New Jersey," "The History of Nursing," and other publications.

In matters of education, the medical profession of Camden County, independently of its work in connection with the public schools, has rendered important service. Dr. Reynell Coates held a professorship in Allegheny College; Dr. Thomas G. Rowand, in the Penn Medical University of Philadelphia; Doctors Dowling Benjamin and E. L. B. Godfrey held lectureships in the Medico-Chirurgical College of Philadelphia; Doctors H. Genet Taylor, A. M. Mecray, William A. Davis, Dowling Benjamin, Onan B. Gross, Daniel Strock, Joseph H. Wills, George Taylor Robinson, William R. Powell, Joseph L. Nicholson, Orange W. Braymer and E. L. B. Godfrey, in the New Jersey Training School for Nurses; Doctors Henry E. Branin, John G. Doron, E. A. Y. Schellenger, Joseph S. Baer, William H. Pratt, William W. Kain, Paul M. Mecray, Alexander McAlister, Eugene E. DeGrofft, Levi B. Hirst, Walter S. Bray and William S. Jones are now, or have been, connected with its teaching force.*

*Since writing the above, Dr. William S. Jones has been appointed assistant Professor of Laryngology at Jefferson Medical College, Philadelphia.

The organization of the New Jersey Training School for Nurses,* in 1889, has not only strengthened the profession of the county, but has extended the bounds of maternal knowledge, and revolutionized the methods of nursing in West Jersey. The old monthly nurse has been relegated to oblivious shades, and in her place the trained nurse has arisen, who is not only instilled with the principles of loyalty to the doctor and fidelity to the patient, but is familiar with the art of observing and recording symptoms and the principles of aseptic nursing.

And now, Mr. President, I close this brief review of the Medical Profession of Camden County. Standing, Sir, upon the threshold of another cycle of years, and looking back upon the record of our noble profession, we behold it in the similitude of a majestic temple, resplendent with the gems of modern science and emblazoned with the glory of love for mankind. Sir, from the time of the discovery of anæsthetics, in the year of the organization of this Society, down to the introduction of aseptic and anti-septic remedies and the more recent animal products, there is no remedy, no agent, or no appliance that has proved of value in alleviating the physical ills of mankind,

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*The Board of Managers, Faculty and Instructors in the New Jersey Training School for Nurses, consist of the following gentlemen: Board of Managers —President, H. Genet Taylor, A. M., M. D.; Vice-President, Alexander M. Mecray, M. D.; Secretary, Daniel Strock, M. D.; Treasurer, William A. Davis, M. D. Members—H. Genet Taylor, A. M., M. D., Alexander M. Mecray, M. D., E. L. B. Godfrey, A. M., M. D., Dowling Benjamin, M. D., William A. Davis, M. D., Onan B. Gross, M. D., Daniel Strock, M. D., Joseph H. Wills, A. M., M. D., Hon. Henry B. Wilson, Rev. Albert G. Lawson, D. D., General William J. Sewell, Peter Van Voorhees, Esq., Rudolphus Bingham, Esq., Joseph L Nicholson, M. D., and William R. Powell, M. D. Faculty—E. L. B. Godfrey, A. M., M. D., Lecturer on Medical Nursing; William A. Davis, M. D., Clinical Lecturer on Gynecological Nursing; Dowling Benjamin, M. D., Lecturer on Obstetrical Nursing; Onan B. Gross, M. D., Lecturer on Anatomy; Daniel Strock, M. D., Lecturer on Dietetics; Joseph H. Wills, A. M., M. D., Lecturer on Hygiene and Massage; Joseph L. Nicholson, M. D., Lecturer on Surgical Nursing; William R. Powell, M. D., Lecturer on General Nursing and Nursing in Special Diseases of Children and the Eye; Orange W. Braymer, A.M., M. D., Ph. D., Lecturer on Physiology. Instructors—Henry E. Branin, M. D., Instructor in Nervous Diseases; John G. Doron, A. B., M. D., Instructor in Medical Nursing. Quiz Instructors—Edward A. Y. Schellenger, M. D., William W. Kain, M. D., William H. Pratt, M. D., Levi B. Hirst, M. D.; Paul M. Mecray, M. D., Instructor in Surgical Nursing.

that has not been speedily adopted by the medical profession of Camden County. Broad, indeed, has been the foundation of this temple, laid by the pioneers who have passed beyond the Great Divide! Firm, indeed, has been the superstructure reared by those whose sun has crossed the meridian and is beginning to fade imperceptibly into the lingering glow of the sunset of life! It is for us who are now laboring in the noontide hours, to enlarge its foundations and to heighten its walls, and it remains for you, young gentlemen, whose morning of professional life is roseate with the glow of the sunrise, to forsake all minor issues and to devote your lives and energies to embellishing this temple with the unfolding truths of advancing science.

Stand fast, then, by the profession whose watchword is progress; whose aim is the amelioration of human ills. Upon both the family and State it showers its choicest blessings. Not only in time of peace has it extended the period of human existence, but amid the desolation of war and the devastation of pestilence, it bears aloft the only standard, and unfurls the only flag—the Red Cross of the Geneva Convention—under whose ample folds the civilized nations of the earth can meet in amicable agreement.

Behind you, members of the Camden County Medical Society, stand the names of our illustrious dead and their great achievements. Before you are "the beckoning splendors of the bright, illimitable to-morrow," with its possibilities of scientific growth and professional triumph. Electricity opens to you, through the discovery of Roentgen, a boundless field for surgical victories; serum-therapy presents unlimited possibilities of medical conquest.

"Men, my brothers, be ye workers, ever reaping something new;
That which you have done, but earnest of the things which you shall do.

Not in vain, the distance beacons. Forward, forward let us range,
Let the great world spin forever down the ringing grooves of change."

THE PRESENTATION OF THE BUSTS.

The next important feature of the programme was the presentation of the busts of Dr. Richard Matlack Cooper and Dr. Othniel Hart Taylor, charter members of the Society. The portrait busts are life size, made of terra cotta, by Mr. Franz L. Engdahl, of Camden, N. J.,

from paintings of the originals, and represent them as they appeared at the prime of their lives and at the period of greatest activity. The President introduced Dr. Onan B. Gross, who

PRESENTED THE BUST OF DOCTOR COOPER,

on behalf of the sculptor, and said:

Mr. President, Ladies and Gentlemen:

As a preliminary to my few remarks, permit me to remind you of the fact that a great many of our pioneer settlers on this side of the Delaware River were natives of Sweden, and when Mr. William Cooper arrived here, in 1682, and settled at Pyne Point, now known as Cooper's Point, in North Camden, he found many of his neighbors to be Swedes. Is it not a strange but fitting coincidence that his great-grandson, Dr. Richard M. Cooper, should have his memory revered to-day by a native of good old Sweden, after a lapse of over two hundred years.

About thirty-five years ago, a lad was born among the Scandinavian hills who, on maturity, became a skilled artist, and as a sculptor became a student of the Swedish Royal Academy, and a few years ago also became a contributor to the Philadelphia Academy of Fine Arts. Catering to the spirit of a naturally growing refinement of our people, and to the interests of his art, he has modeled two busts for this very appropriate occasion. Therefore, on behalf of the sculptor, Mr. Franz L. Engdahl, I have the pleasure to present the bust of Dr. Richard M. Cooper to the Camden District Medical Society, on this, its fiftieth anniversary.

Dr. Cooper was one of the eminent trio of physicians in this city who were instrumental in organizing this Society in 1846; but his retiring modesty was so great that he would not permit his own election to its presidency until 1871, accepting only such minor offices as Secretary or Treasurer during these intervening twenty-five years. Another strongly marked trait of his character was charity, and all that the name implies. And as a physician of great skill, he was able to carry all the more sunshine into the sick-room by reason of this benevolent disposition. During the thirty-five years of his medical practice, he was regarded as an ideal physician, benefiting rich and poor alike, and without reference to creed or nationality. Dr. Cooper's

loyalty to his profession was also so great that his interest in this Society was perpetuated after his death by a legacy of three thousand dollars, the income of which was to defray its expenses and insure its permanency. He well knew the necessity for medical associations, the gathering together of physicians for mutual encouragement and help, in the interests of their arduous and at times highly responsible duties.

He was also an incorporator of the City Medical Society and the Camden City Dispensary. These institutions were likewise beneficiaries of his endless bounty, and to his credit, more than to any other individual, is due the very successful career of the Medical Society and the equally good work accomplished by the City Dispensary.

His greatest work in philanthropy, however, was, in conjunction with his immediate relatives, the establishment of the Cooper Hospital. A very large fortune was left in trust for the building and maintenance of this institution; and the successful accomplishment of the work for which it was intended can best be realized by a study of its annual reports. Its doors are open to all ailing or injured people of this State, and its charity is almost boundless. Thousands of dollars are expended annually for the proper care of the sick and wounded, and it is to be hoped that in the nearby future our city officials will relieve this institution of its burden of taxation in order that its fullest measure of good work may be realized and accomplished, more especially as the citizens who are represented by these officials are the direct beneficiaries of this hospital.

It would not be possible for me to elaborate in detail all of the good deeds of this truly great man; for the mantle of charity that he spread for the benefit of suffering humanity is so wide and universal, that mere words cannot be found to justly portray its far-reaching influence and effects. As well might the painter's brush attempt to portray the brilliancy of an October sunset. We believe, however, that he is justly entitled to a place in that niche of fame now occupied by such philanthropists as George Peabody, of New York, Steven Girard, of Philadelphia, and Johns Hopkins, of Baltimore.

In conclusion, permit me to suggest that, in the acceptance of the bust of Dr. Richard M. Cooper, properly placed in position in the rooms of the Medical Society, it be ever regarded as a signal for closer and more charitable associations of its members, for each other, as well as towards a seemingly cold, calculating and uncharitable world; and

the very highest honor we can aspire to in this connection, will be to emulate as nearly as possible the life work of our great philanthropist, Dr. Cooper.

ACCEPTANCE OF THE BUST OF DOCTOR COOPER.

Dr. James M. Ridge accepted the bust of Dr. Cooper, on behalf of the Society, in the following terms:

Ladies and Gentlemen:

I should have wished the office had fallen to abler hands. Professional labors and engagements have left no time at my disposal but the midnight's hour. That this brief interval should have been stolen from repose, robbing a constitution not now richly endowed with physical powers, and devoted to the cultivation of language and adornment of style, to which I make no pretension—they are incompatible with hasty or extemporaneous composition—and will compose no part of my present remarks.

The image of our departed brother stands before you. The lineaments of the face are true and accurate to a facsimile, and all honor is due to the artist who has so carefully and so justly portrayed the features of our beloved brother. The thanks and appreciation of this Society are tendered for his skill and labors.

I had it in my mind to suggest a motto for this bust, but I did not think of it until after the bust was completed. The words may be found recorded by Virgil—the words of Dido, the reputed foundress of Carthage, to Æneas, the Trojan hero, which read as follows, and when they are read, you must remember that he should be the first person to illustrate and translate them to make the sentence: "Non ignora mali miseris succorere disco"—"Not being myself a stranger to suffering, I have learned to relieve the calamities and miseries of others."

So with Richard Matlack Cooper. After receiving a good preliminary education, he entered the University of Pennsylvania in 1832. He remained there four years and was graduated from the literary department. After that he entered the medical department of the University of Pennsylvania under that great teacher, Dr. George B. Wood, whose fame is throughout the civilized world. Richard M.

Cooper graduated, after a three years' course, in 1839, and immediately took up the practice of medicine in the city of Camden, where he soon ranked with the physicians who were here before him. It seems as if he had the ability to grasp not only his own profession and the literature thereof, but he had the ability to grasp everything around him; and he took an interest not only in the State, but he took an interest in the Union, and took an interest in the municipality and everything of that kind; yet, at the same time, no man that I am acquainted with was more devoted to the medical profession than Dr. Richard M. Cooper.

In 1856, I became acquainted with him. I associated with him in the medical Societies, the societies which he helped to found and cared for so well, one of which he fostered by a donation of three thousand dollars, as has been already said. I never met a man so calm, so cool, so collected in a sick room; surrounded by death, even, he was in smiles. I never met such a man. I recollect one instance I will mention. We were met in consultation, and the case was a serious one, which we believed would prove fatal. When we came out of the house I said to him, "Doctor, how can you remain so cheerful when death is staring us both in the face?" "Why," he says, "Doctor, I do not wish to worry myself to death, and die before my patient." I thought it was the most appropriate answer I had ever received from any man. He was thoroughly acquainted with his profession, and his diagnoses and prognoses were accurate, almost faultless.

I never knew a man to be so charitable. Now, it is unnecessary for me to mention the fact that he would attend his patients and would furnish the medicine afterwards, frequently without charge. That shows his charitable character, his great philanthropy. It is unnecessary to say that he was prominent in the organization of the Camden County and City Medical Societies, and the Dispensary, of which he was Treasurer at the time of his death. It is unnecessary, because there has been so much said about the Doctor and his connections, to go over that again. The only thing I can say is this: In my acquaintance with him I found him so completely wrapt up in the science of medicine that he was sincerely devoted to it, and I do not think I can do better justice to him than to give some few verses of one of our poets, who has gone to join the majority: He was

OTHNIEL H. TAYLOR, M. D.,
(Deceased.)
President of the Camden District
Medical Society, 1849.

RICHARD MATLACK COOPER, M. D.,
(Deceased.)
President of the Camden District
Medical Society, 1872.

"Sincerely devoted to the healing art,
By solemn consecration set apart
To be a minister of God above,
In the sublime activities of love.
His natural function was to give relief
In the dark hours of suffering and of grief;
Between the living and the dead to stand,
Where fall the shafts of death on either hand;
Without one thought of flight, to still maintain
Perpetual battle with the powers of pain;
With a fine arrow from a well-bent bow,
Transfixing fatally the murderous foe,
And with an arm made powerful to save,
Snatching the destined victims of the grave.
The lofty nature of his calling such,
You cannot magnify the same too much,
Which Tully, even, eloquently lauds
As that which lifts man nearest to the Gods."

And too, he was an alienist; he had studied psychology, and he was thoroughly acquainted with the treatment of insanity and all its adjunct diseases; hence he could "minister to a mind diseased, pluck from the memory a rooted sorrow, raze out the hidden troubles of the brain, and with some sweet, oblivious antidote, cleanse the stuff'd bosom of that perilous stuff which weighs upon the heart." All of which our beloved brother could do.

And now, in conclusion, the cold, inanimate clay stands before you, silent, pleading for recognition and reception. I therefore have the pleasure, by virtue of the order of the District Medical Society which he loved so well, to receive this bust, to adorn its halls now and for ever. And in conclusion, ladies and gentlemen, permit me to say that so long as the note of merit is sweet to any, Camden will be charmed by the music of the voice that utters the name of Richard M. Cooper.

After a musical selection, the President introduced Dr. Benjamin S. Lewis, the Secretary of the Society, who, on behalf of the sculptor,

PRESENTED THE BUST OF DOCTOR TAYLOR,

in the following address:

Mr. President, Ladies and Gentlemen:

From a time to which the "memory of man runneth not to the contrary," there has been a custom, upon occasions of peculiar felicity,

to present some substantial token as a memento. We read in history, both inspired and profane, from the earliest recorded time, of gifts which accompanied tribute paid by the donors. Whether it be the tribute demanded by a kingly potentate, or the spontaneous expression of good will of the giver, substantial gifts accompany the act. It is a beautiful custom. It is a visible expression of one of the most estimable attributes of our common humanity—unselfishness.

Such mementoes, presented upon an occasion of this character, may be rich and dazzling examples of the lapidary's art or the goldsmith's skill. They may consist alone of some object, rough and uncouth in itself, of little intrinsic value. Both typify and illustrate, however dazzling or dull, respect and love in tangible form. This custom, again, emphasizes the fact that the recipient is entitled to respect and love; it emphasizes the fact, also, that the giver is capable of showing respect and love.

In pursuance of this custom, Mr. President, I have been assigned the honor to present upon this, our golden anniversary, a substantial token which, during long ensuing time, I hope, may be a reminder to the members of the organization, not only of brilliant achievements accomplished in its past history for the good of mankind, but which will also be a constant reminder of one who gave his best efforts and talents to the relief of the physical ills of his fellow-man and was an active and consistently outspoken advocate of the honorable traditions of our noble profession. Therefore, on behalf of Mr. F. L. Engdahl, of this city, the generous donor as well as the skillful sculptor of this bust, I now present it to the District Medical Society of Camden County.

Othniel Hart Taylor! What memories, pregnant with interest to every member of the Society, are suggested by the mention of his name. Incorporator, Secretary, President, filling every honorable position within its gift with earnest zeal, because he knew the associated work of the members who composed this Society would make for the benefit of the community. Unselfish in character, his active energies were directed largely to the organization of systematic schemes for the relief of the physical ills of the indigent poor of his adopted city. But recently endowed with the degree of Doctor of Medicine by the University of Pennsylvania, when the first great cholera epidemic —that of 1832—devastated this land, this young practitioner, Dr. Taylor, plunged, evidently without fear, into the midst of the deadly

scourge in Philadelphia, and offered his professional services to the authorities. Placed in charge of one of the most important of the municipal hospitals, his service was so faithful, so constant, so careful and so successful that when the intensity of the outbreak had subsided, the municipal government of that great and growing city unanimously recorded its appreciation of his work and accompanied the notice of that record with a service of silver bearing the inscription that it was given "as a token of regard for intrepid and disinterested services."

Removing to this city subsequently, and intelligently observant as to matters of public benefit, after devoting some time to assisting in organizing the medical profession into the Camden County and City Societies, he directed his energies largely in assisting in the establishment of a free dispensary for the relief of the physical ills of the indigent. The dispensary began its work in a small way. It could not reach all deserving cases. By the activity of his efforts it was benefited by an appropriation from the city treasury, continued annually for a number of years, which assisted greatly in extending the benefits it vouchsafed to the poor. It would be impossible for me, within the limits of time assigned me, to enter very fully into the work of the Camden City Dispensary. It, alone, as it stands to-day, is a monument to the unselfish labors of Othniel Hart Taylor. I may mention, however, that upon the organization of the City Dispensary, one attending physician was competent to do the work. To-day, thirteen consulting and nineteen attending physicians, surgeons and gynecologists constitute the staff of that institution. They furnish their services gratuituously. When I add that upward of 10,000 indigent patients were prescribed for without charge during the past year, you will have suggested a thought of the great work for good among the poor of this community which was inaugurated by Othniel Hart Taylor, who was so forceful a factor in calling that institution into existence.

To conclude, these two striking characteristics of his life work entitle Othniel Hart Taylor to be included in the very apt description of Cicero, 2,000 years ago: "Homines ad Deos nulla re proprius accedunt."—"Men in no particular approach so nearly to the gods as by giving health to their fellow-men."

ACCEPTANCE OF THE BUST OF DOCTOR TAYLOR.

At the conclusion of Dr. Lewis' remarks, the President introduced Dr. Daniel Strock, who, in receiving the bust of Dr. Taylor, said:

Mr. President, Gentlemen of the Society, Ladies and Gentlemen:

It is an act of filial duty upon the part of this Society to do honor to its founders, and we are here to-day, not only to give public expression of our pleasure that this organization has been in existence for fifty years, but also, as a fitting accompaniment to the event, to give you some account of two of its most prominent members who have distinguished themselves in our profession. Doctor Othniel Hart Taylor is one of those whose memory we delight to honor. Dr. Othniel Hart Taylor was a native of Philadelphia, in which city he was born May 4, 1803. He was of English ancestry; both his parents, William Taylor, Jr., and Mary E. Gazzam, being natives of Cambridge, England. They removed to America in 1793 and settled in Philadelphia, where for more than forty years William Taylor was engaged in extensive mercantile business. In his early years, Othniel Hart Taylor attended elementary schools in Philadelphia and Holmesburg, Pennsylvania, and in Basking Ridge, New Jersey. He studied earnestly and effectively and made rapid progress. In the year 1818 he entered the literary department of the University of Pennsylvania, and there pursued the more advanced studies of a general education. He had decided upon entering the medical profession, and in the year 1820 he became a student in the office of Thomas T. Hewson, M. D., the distinguished physician and surgeon. At the time he was pursuing his studies in Dr. Hewson's office, he matriculated in the University of Pennsylvania medical department, and completed his studies in 1825, graduating with the class of that year.

After graduating, he at once entered upon the practice of his profession in the city of Philadelphia. He brought to the work he had chosen a combination of qualifications as valuable as rare. He was energetic and patient; he was progressive and prudent; he worked ceaselessly, but always had leisure to meet the necessities of others; he studied continuously and practiced cautiously; he had much knowledge, and so much modesty that his knowledge was never obtruded. Such a combination in the long run makes success, and success came

to him. Soon after he entered upon the practice of his profession he was appointed one of the physicians of the Philadelphia Dispensary, in which capacity he served for many years. About the same time he was elected out-door physician to the Pennsylvania Hospital, a position which he held for a term of eight years. He made a mark for himself even at this time. His work was done with conscientiousness and with a fidelity to his duties that attracted attention. We cannot consider the life of a man without paying some attention to his environments. The biographer cannot write the history of an individual without considering the times in which he lived. So it is with us. We must, in considering the life of Dr. Taylor, give some attention and thought to the period of his existence and activity. It was in 1817 that the cholera began its march from Bengal, and during a period of fifteen years it passed throughout the entire habitable globe. When, in 1832, it invaded Canada, which was one of the first points reached on this continent, there was more or less alarm throughout the entire country, and the cities that were not infected considered it their duty to take steps to try and stop its progress. The City Council of Philadelphia appointed a Sanitary Commission to go to Montreal, in Canada, and see what could be done to stay the disease, and to formulate a plan that would prevent its entrance into Philadelphia. This young man, Dr. Othniel H. Taylor, who had been engaged in the practice of medicine for seven years only, but who had already, as I have said, distinguished himself in the hospitals of Philadelphia, was selected as one of the commissioners to go to Montreal and report to the City Council of Philadelphia.

Now, this was a distinguished honor for one so young. It demonstrated that he had marked ability; that his attributes were well known even at this early day. But he was unable to accept this position, and Prof. Charles D. Meigs was selected in his stead. The names of the other men on the commission are sufficient guarantee of the fact that none but the best men were selected for this duty.

Notwithstanding the effort on the part of the municipality to prevent the encroachment of this disease, it finally did reach Philadelphia in 1832, and the first case occurred on July 11th, and terminated fatally. During this period there was felt the greatest alarm, and many of the inhabitants were preparing to leave the city. The newspapers of the day were constantly enjoining upon the people to be calm; telling them how to live carefully, and avoid certain

articles of food and drink that would be deleterious, and everything indicates that there was a panic at that time prevailing throughout the city of Philadelphia, as well as throughout the cities of the seaport and interior. Dr. Taylor, notwithstanding that it was impossible to perform this first great duty devolving upon him, immediately offered his service to the City Council of Philadelphia in any capacity that they might elect to place him. After the disease reached Philadelphia, seeing that there was likely to be a severe epidemic, as there was in other cities this plague had reached, Dr. Taylor was summoned as one of the seven physicians placed in charge of the seven hospitals that were established at that time for the treatment of those cases which could not be properly taken care of at home. He was assigned to St. Augustine Hospital, at Fourth and Crown Streets, and had charge of it until the close of the epidemic.

Rev. Father Hurley, in charge of the parish, in preparation for this event, had the convent and parish-house prepared for the admission of patients. Dr. Taylor here fulfilled all the duties that pertained to this position, and, notwithstanding the fact that his hospital, as well as others in the city, was threatened by the mob that from time to time would gather about, believing that these hospitals were foci for the extension of the disease, remained at his post, and continued there until the end of the epidemic in Philadelphia. And as an evidence of the good work he performed at that time, I may mention that out of a total of 2,329 cases occurring in the city of Philadelphia, Dr. Taylor treated at his hospital 512—that is to say, nearly one-fourth of the cholera cases occurring in the city of Philadelphia in the year 1832 were treated by Dr. Taylor. And as an evidence of the nobleness of his heart, notwithstanding the fact that his death-rate was the lowest of any of the hospitals of the city of Philadelphia, he disclaimed that the credit was entirely due to himself, but asserted that it was largely due to the fact that he had as nurses the Sisters of Mercy, that had been placed at his disposal by Father Hurley.

In addition to occupying the position of physician in charge of the St. Augustine Hospital, he was also a consulting physician of the Sanitary Board of Council, and, as has been said to you by Dr. Lewis, after his services were over he refused to accept any remuneration for what he had done at this time, and the City Councils of Philadelphia presented him with a very handsome service of silver.

In the meantime, Dr. Taylor had attained a very extended private

practice and achieved recognition as a man already eminent in his profession. His arduous and unceasing labors told inevitably upon his health, and at length, in the year 1838, in consequence of impaired health, he temporarily relinquished the practice of his profession in Philadelphia and removed to Fountaintown, Pennsylvania. He remained there until 1841, when he removed to Caldwell, Essex County, N. J., and in 1844 he took up his residence in Camden. In the meantime, he had resumed practice with the recovery of his strength, and in Camden his medical career was, from the first, one of great success and distinction. Here his influence was immediately felt upon the medical sentiment of this county and State. He was instrumental in aiding in the organization of the Camden County Medical Society and, indeed, I am saying what is perfectly accurate when I assert that there is reason to believe that the idea originated with Dr. Taylor. He had been associating with some of the first medical minds of the time in Philadelphia and other cities, and had become imbued with the idea that a medical society in this county was necessary as an aid in the development of the medical profession. So, in 1846, he was one of the incorporators of this Society, and the first Vice-President. This position he held for four years, and in 1856 he was elected President. His services in the Society were always of the highest order. Ever ready to contribute in the way of medical papers, he was present whenever possible at the meetings, and took part in the discussions that occurred from time to time, and labored in every way to build up and maintain the Society.

In 1849 he was elected third Vice-President of the Medical Society of New Jersey. In 1850 he was elected second Vice-President of that Society; in 1851, first Vice-President, and in 1852, President—the highest position in the gift of any medical Society of this State. And it is interesting at this time to note that whereas Dr. Othniel H. Taylor was the first medical man from the Camden County Medical Society to occupy the chair of President of the New Jersey Medical Society, on the other hand, the last man from this County Society who has occupied the same position was his son, Dr. H. Genet Taylor, who was chosen President of the Society in 1889; so that it is a remarkable coincidence that the first and last man to represent the Camden County Medical Society in the chair of the State Medical Society was the father and son, Dr. Othniel H. Taylor and Dr. H. Genet Taylor.

In 1853 he was the first chairman of the Standing Committee of the Camden County Medical Society; and also in 1853 he was one of the organizers of the Camden City Medical Society, being chairman of the committee that drafted the Constitution and By-Laws of that society. In 1856, at the same time he was President of the Camden County Medical Society, he was elected President of the Camden City Medical Society; and in 1858 he was elected a member of a committee of the Camden City Medical Society to investigate and report upon the filthy condition of the hydrant water at that time. In 1857, he was appointed a delegate by the Camden City Medical Society to a convention that was held in Philadelphia to formulate a uniform system of quarantine laws—another recognition of his ability as a sanitarian.

In 1859 he proposed the establishment of the Camden City Dispensary. His large hospital experience in Philadelphia and his work there, had shown him the necessity of something of the kind in this city to alleviate the sufferings of the worthy poor. There was no way to treat them at home, perhaps, which is frequently the case at the present day, because "the poor ye have with you always," and therefore he conceived the idea and introduced a resolution in the Camden City Medical Society for the establishment of the Dispensary and he was chairman of the committee appointed to formulate a plan of organization. He was, therefore, one of the incorporators of the Camden City Dispensary, and the first President of the Board of Managers.

Now, while we speak of this as the Camden City Dispensary, it is well to bear in mind that it was at that time called the Camden City Hospital, and it was the first hospital that had been established in this city. It was, of course, a miniature hospital in comparison with the one that now exists here, but it was at that time an institution for good in the community that we cannot over-estimate. There were several beds placed in the hospital proper, and patients were cared for and treated there just as they are now treated at the Cooper Hospital. Therefore, to Dr. Taylor belongs the credit of having been the first to suggest a hospital in Camden City, and too much honor cannot be accorded him for that fact. He was one of the first delegates to represent the Camden City Medical Society on the Board of Managers of the Camden City Dispensary.

Dr. Taylor was a literary man. His papers, read before the Camden

County Medical Society, the Camden City Medical Society, and the State Medical Society of New Jersey, were numerous. They were not alone upon medical, but upon scientific and philosophical subjects. His range of writings were varied, and he never wrote anything but what was a source of pleasure and profit to those who listened to him. As a physician, he was painstaking and careful, and devoted to the interests of his patients. As a member of the Society and of the profession, he was honorable at all times; he was never guilty of anything that was not manly, just and proper; he was careful of the interests of the young men of the profession, and was solicitous as to their welfare and their progress, and did everything he could to advance them, and there are, no doubt, members of the profession here to-day who remember with gratitude the kindnesses of Dr. Taylor in various instances.

He continued actively engaged in the work of his profession until about a year before his death, when, owing to his rapidly failing strength, he was obliged to relinquish his practice entirely. His fatal illness commenced with a severe attack of pneumonia early in the winter of 1864, which resisted all efforts to check the rapidly developed disease of the lungs and resulted in his death September 5, 1869. Added to his eminent qualities as a professional man, Dr. Taylor possessed rare personal characteristics which won for him not only the respect and esteem, but the warm affection of all who came within his acquaintance. He was for many years a member of the Protestant Episcopal Church, in Camden, and at the time of his death was a vestryman and the senior warden of St. Paul's Church in this city. His domestic relations were most happy, and I can indicate it best, perhaps, by saying to you that I have heard his son many times speak of "father" in an affectionate, reverential manner that tells more than words can what the home life and influence of such a parent must have been.

Now, on behalf of the Camden County Medical Society, I desire to accept this work of art from Mr. Engdahl, and tender him the thanks of the Society for his donation. I can assure him that it will be placed in the rooms of the Society, where it will ever remain, to be an inspiration to those of us who are present in the flesh, as it must be a stimulus to those who come after us to try and emulate the good works done by the original, Dr. Othniel Hart Taylor.

The exercises closed with music, following which the audience was dismissed.

THE BANQUET HALL WAS NOT DESERTED.

At six o'clock, in the evening, the members and guests assembled in the banqueting room of the Temple Theatre, and to the sweet strains of a stringed orchestra, discussed the following:

MENU.

Raw Oysters, sterilized.
Puree of Celery. Aseptic Soup.
Rockfish, Egg Sauce. Sherry.
Sweet Bread Patties, a la Serum Therapy.
Saddle of Venison, with Jelly. Sauterne.
French Peas. Potato Croquettes.
Stewed Celery, in Cream. Claret.
Esculapian Punch.
Quail on Toast, with Water Cress.
Saratoga Chips.
Chicken Salad, a la Medicale. Catawba.
Assorted Pickles. Olives.
Fancy Cakes. Assorted Ices. Champagne.
Salted Almonds. Fruits.
Crackers and Cheese.
Coffee. Chocolate. Cigars.

When the cigars were reached, the Secretary of the Society, Dr. Benjamin S. Lewis, arose and read the following

LETTERS OF REGRET.

ATLANTIC CITY, N. J., February 10, 1896.

B. S. Lewis, M. D.,
Secretary Camden County Medical Society.

Dear Doctor—Please extend my sincere greetings and thanks to the Committee of Arrangements of the Fiftieth Anniversary of your Society. It would give me great pleasure to be present, but I have a number of referred patients here at this time; this, with the time con-

sumed by a recent trip to Europe, compels me to stick close to the shop now. Will you kindly convey my best wishes, with my regrets, to my many friends in the District Medical Society of Camden County.

Sincerely yours,

BOARDMAN REED.

WOODBURY, N. J., February 10, 1896.

B. S. Lewis, M. D., Secretary, etc.

Dear Doctor—Owing to my recent recovery from severe illness, I regret my inability to accept the kind invitation of your Committee of Arrangements for the eleventh.

Please extend my sincere thanks to your Committee for the invitation, and permit me to wish for you a very happy celebration.

Sincerely yours,

H. C. CLARK.

CAPE MAY, N. J., February 10, 1896.

B. S. Lewis, M. D., Secretary, etc.

Dear Doctor—Please thank your Committee of Arrangements for their kind invitation to be present at the Fiftieth Anniversary of your Society on the eleventh.

I sincerely regret that duties here will not allow me to be present to greet many old friends and acquaintances.

Yours truly,

JAMES MECRAY.

MOUNT HOLLY, N. J., February 11, 1896.

B. S. Lewis, M. D., Secretary, etc.

Dear Doctor—Don't think I do not appreciate the Committee's kind and thoughtful invitation to be present at the celebration of old Camden's semi-centennial. I fully expected to be with you until this morning, when I found I had a pressing and not-to-be-shaken engagement with the old enemy, "La Grippe."

That I am able to joke about the matter now, would indicate that I feel able to throw the monster off. I am sure you will have a grand time, and am only sorry that it will be lost to,

Yours truly,

W. P. MELCHER.

THE TOASTS.

After the reading of the letters, the toastmaster, Dr. Dowling Benjamin, announced that the following programme of toasts had been prepared by the Committee of Arrangements:

"A Word of Welcome from our President,"
Dr. ALEXANDER MCALISTER.
"The State of New Jersey,"
Brig.-Gen. JOHN D. MCGILL, Surgeon-General of New Jersey.
"The Medical Society of New Jersey,"
WILLIAM ELMER, M. D., President.
"The State Board of Health," HENRY MITCHELL, M. D., Secretary.
"The State Board of Medical Examiners,"
WILLIAM PERRY WATSON, M. D.
"The Order of Military Surgeons of New Jersey,"
Lieut.-Col. MORTIMER LAMPSON, M. D., President.
"Our Guests," - - - - WILLIAM H. IRELAND, M. D.
Other Matters, - - - - - - - - Other People.

The toastmaster further announced that the above programme would necessarily be modified somewhat because of the absence of three of the gentlemen who had been assigned toasts. He thereupon called upon the President of the Society, who spoke as follows:

REMARKS BY THE PRESIDENT.

Gentlemen and Fellow Physicians:

It seems to me that we have ample reason to congratulate ourselves upon the completion of the fiftieth year of the District Medical Society of Camden County, for it is evident to my mind that this society has been no small factor in the intellectual growth of the medical practitioner in this city, and I am certain that medical men have a greater influence to-day in this community than ever before. These results—or the present standing of the profession in this city and county—is certainly due, in a very large measure, to the work of this Society. We have not been favored with the presence of any great discoverers among our members, but we have been and are blessed

with the inspiring words and unremitting labors of men who realize their responsibility to the community and who look upon their profession as being, in the highest sense, a Divine art. And so, looking over the records of this Society's work for the last half century, I am to-night more deeply conscious of the honor you have conferred upon me in making me your President.

I have spoken of the Divine art of healing. And is it not such? The Saviour never appears more tender and loving to human comprehension than when he appears as the "Great Physician," visiting the sick in their afflictions, making the blind to see, the lame to walk, the deaf to hear and the dumb to speak. The ideal Christ has been in all times Christ, the healer, and the great heart of humanity goes out in love and reverence to Him who could look upon their ignorance and their misfortunes, not with contempt and derision, but with sympathy. No matter what our individual religious conceptions may be, we can all appreciate the Christ in this character, and we may well spend our lives in emulating his tender sympathy and sublime patience, having the assurance that no effort of ours could more quickly win the regard of our fellow-beings, and that, when the end comes, when dissolution seizes this mortal frame, we shall enter into the reward that he said awaited the good and faithful servant of God and humanity. It is this religious or, if you prefer, this moral and humane view of our profession that I would impress upon you and upon myself at this time.

It may or may not be a curious fact that the doctors, and their fellow-workmen in other scientific lines, have been much quicker than the business classes to perceive the advantages of combination, mutual effort and unity of purpose, and I am prone to believe that professional men maintain a higher standard of honor and conscience towards the public largely by reason of these coöperative educational efforts. That sounds like a very strong statement, but why is it not true if increase of conscience comes with increase of knowledge, and if increase of knowledge comes to all of us from these professional societies? You will observe that my conscience is tolerably clear concerning our work, individually and collectively, and I am satisfied that no one will begrudge us this little relaxation from diagnosis and prescribing. Neither am I fearful that the restless spirit of any one of our patients will rise to disturb the harmony of this festive occasion; but if some departed soul should take it into mind to pay us a call, I

am sure that every one of us can and will conscientiously cry, "Thou canst not say I did it." But I am jesting on a grave topic. We have with us to-night many men with weighty messages of learning and the lighter speech of cheer and courage.

"THE STATE OF NEW JERSEY."

The Toastmaster—We have the honor to have with us this evening a prominent member of the medical profession in this State, as well as the highest medical representative of the military of the State, who is also a brother of the highest representative of the Judicial department of the State—men who are an honor to our institutions—a graduate of Princeton College and a man who stands at the top in all departments of his profession, as well as officially. I have the honor to call upon Brigadier-General John D. McGill, Surgeon-General of the National Guard of New Jersey.

RESPONSE BY GENERAL McGILL.

Mr. President, and Gentlemen of the District Medical Society of the County of Camden:

Allow me to congratulate you upon this very successful celebration of the semi-centennial of the foundation of your Society. I regret very much, gentlemen, that I was unable to be present with you this afternoon to take part in the exercises, but I understand from those who were present that those exercises were of the most absorbing interest, and that the eloquence of the orators was beyond precedent. But at the finale of your golden jubilee, to-night, I am most happy to be present to exchange cordial greetings and to pledge your good health. It appears to me fit and proper that you should have a representative of the District Medical Society of the County of Hudson with you this evening. There is an analogy between the counties of Camden and Hudson which should serve to stimulate the interest of the citizens of one county in the affairs of the other. They are both, so to speak, terminal counties of the State; both are located opposite metropolitan cities, and the shores of both are washed by majestic and famous rivers. There may be points of difference, doubtless there are, but these being of a local or political nature, we will not talk about them to-night.

Now, your toastmaster has called upon me to respond to the toast of "The State of New Jersey." New Jersey is a small State in com-

parison with some of her larger sisters, but, small as she is, she compares favorably in many respects with the leading states of the Union. What she lacks in quantity she makes up in quality. Her area of eight thousand square miles of territory, in comparison with the two hundred and twenty-six thousand square miles of territory of Texas, seems very small, indeed. But it is best, in comparing Texas to New Jersey, to limit the comparison to square miles of territory, for if you go beyond that, the comparison will be odious, to Texas.

The situation of New Jersey is a "coign of natural vantage." Located, as she is, between the two greatest and most populous states in the Union, she possesses exceptional advantages and benefits, and she is not slow to take advantage of them.

There are some people who live outside of New Jersey, and are strangers to the State, who have their minds filled with erroneous ideas and prejudice against the State. The common belief among such people is that New Jersey is a barren, sterile, sandy waste of ground; that its leading industries are the cultivation and production of cranberries, watermelons, sweet potatoes, applejack and mosquitoes; a mere stretch of sandy seashore, between the states of Pennsylvania and New York, owned and over-run by railroads. Little does the traveler imagine, as he is whirled in the steam-car over the expanse of territory that stretches between New York and Philadelphia, that he is crossing a State which, in point of population, is the sixteenth, and in point of manufactures, education, products of soil, and the intelligence of its people, second to no state of its size in the Union. It is true that New Jersey is over-run with railroads. I believe there are over two thousand miles of railroads in the State; that would make about one mile of railroad to every four square miles of territory.

Well, in some respects, the undue extension of railroads are to be deprecated, yet we cannot but admit that they are great civilizers, and that they promote progress. Wherever you find that the iron rail is laid, there, in due time, civilization and progress will surely follow.

New Jersey, as I have said, has an abundance of railroads, but she makes good use of them by imposing a State tax upon them, which tax fills her treasury. Through a surplus of funds thus created, her citizens, especially those who are agriculturalists, reap great benefits, for they escape the infliction of a direct State tax. It is true a great

injustice is done by the laws controlling the imposition of railroad taxes in New Jersey, to the larger cities of the State, particularly railroad terminal cities, like Camden and Jersey City, where railroads own great areas of land and much other property, and where they have the benefits of local protection, but fail to pay their share of local taxation. It is hoped that in the near future, our legislators will be honest and just enough to pass laws that will remedy this unfair discrimination. Our State treasury is in quite a flourishing condition. This, of course, is not an unmixed evil, because at times it stimulates unscrupulous and dishonest politicians to organize raids thereon; but, as a rule, the finances of our State have been, and are to-day, managed with fair ability and honesty.

The proximity of the two great cities of New York and Philadelphia causes an overflow of population into New Jersey, particularly in the portions of the State which are contiguous to these cities. This overflow of population has been found to be composed of people generally of a very desirable character. The people who come here to live make very fair citizens. Now, this new class of immigrants have entirely upset the old rule of politics in the State. No longer is the State surely Democratic or Republican; it depends on what a political party does to make its record popular whether the people entrust it with power or not. The vote to-day in New Jersey that decides elections is a non-partisan vote. If the party in power has been guilty of derelictions of duty and has failed to keep its promises, then the people at the next elections as speedily as possible put it out of power; so that the average politician in New Jersey has a wholesome fear and awe of the people; he is put upon his good behavior, and he must give a good account of his stewardship or the people will mark him for future reference. Lincoln's famous aphorism serves to him as a continual warning. It is this: "You can fool all the people some of the time; some of the people you can fool all the time, but you can't fool all the people all the time."

Gentlemen, after I left home to-day and was on the train en route to Camden, it suddenly occurred to me that I had forgotten something; I couldn't think exactly what it was. What was it? To my consternation it dawned upon me that I had forgotten to write out and learn a speech. Now, I am not a public speaker nor after dinner talker, and I was in a terrible dilemma. You know what we doctors do—that we put everything off to the last moment. I put the preparation of this speech off to the last moment. There I was in the car speeding

towards Camden with nothing to say when I got there. What did I do? I did as any one of you would have done; I put my hand in my pocket, I found I had a pad of prescription blanks, and I tried to write a speech—at least the outlines of one. That is my apology for using these notes. I will omit a number of matters concerning our State I had noted down in my memoranda to talk about, and in conclusion will briefly call your attention to New Jersey's history.

While New Jersey has been wonderfully progressive and prosperous in modern times, she was the scene of historical events in the past, of absorbing interest. From the time that the Swedes established their settlements on your Delaware, and the Dutch their settlements on our Hudson, and through all the intervening time, first under the rule of the Dutch, then under the rule of the English, and the division of Jersey into East and West Jersey, down through the War for Independence, her history was of intense interest. During the War for Independence, the colony of New Jersey was thoroughly loyal and true to the cause of the Continental Congress. The State sobriquet you have all heard of, "Jersey Blue," originated from her known sympathy with the Whig party in that momentous struggle. In the dark days of '76, '77, and '78, when the cause of freedom seemed doomed, and the spark of liberty appeared about to be extinguished, the brave and heroic achievements and brilliant successes of the patriot armies under Washington at Trenton, Princeton and Monmouth, this "*great news from the Jerseys*" served to stimulate and inspire with fresh courage the patriot armies, and nerve them still more and longer to continue to battle valiantly until their cause was finally triumphant. Through that long and weary struggle, New Jersey was one of the main theatres of action, and its people—all honor be to them—were always to be found loyal and true. Tories were scarce, but the Whigs were plenty.

In the late War of the Rebellion, when occasion required, and patriotism and sacrifice were called for, New Jersey, as usual, responded nobly and offered freely of her blood and treasure for the preservation of those institutions which she had battled formerly so bravely to establish. Of ninety-eight - mark you, gentlemen—of ninety-eight thousand of her sons who were capable of doing military duty, eighty-eight thousand of their names - all but ten thousand—were found upon the rolls of the federal army during the four years of the war.

One word more. I refer to the matter of education. Common school and higher education in New Jersey is in an advanced and progressive condition. We have numerous centres of education in the State. In the larger of our cities, the common schools are effective and capable, and there is hardly a city of over twenty or thirty thousand population that hasn't its High School. Besides all these, there is, within the boundaries of this State, one of the three great universities of the country, and I think the most progressive of the three, and that is Princeton. New Jersey also has other noted and deservedly famous colleges, such as Rutgers, Stevens Institute of Technology, Seton Hall and others I do not think of at this time. Gentlemen, I trust you will pardon me for taking up so much of your time. You made a mistake in giving me New Jersey to talk about, because on that subject I do not know when to stop.

"THE MEDICAL SOCIETY OF NEW JERSEY."

The Toastmaster.—The stirring and patriotic sentiment you have just listened to is a fitting prelude to the next toast, because coupled and consonant with the cause of Princeton, Trenton and Monmouth, we have, coming down the corridors of time, the reputation of medical men who stood foremost in those stirring times and in those terrible battles. We have their descendants with us to-day and we have the medical profession, in all great events, standing prominently forward; and it gives me great pleasure to have to greet you to-night a man whose great-grandfather was a general in the Revolutionary army, who occupied the position of Senator, who was a Judge, as well as a theologian. You will remember that the theologians of this State were not slow. You remember the brother who, at the battle of Monmouth, brought out the hymn books when the ammunition was scarce, and said, "Give them Watts, boys," and even the women in the days of Molly Pitcher went to the guns. You will remember, she never stopped to see if her husband was properly cared for in death, because she knew if they won the battle that his memory would be forever perpetuated in the history of his country.

Dr. Elmer is President of the State Medical Society to-day, of which his great-grandfather was the first President, the oldest Society in this country, showing that the race has been properly propagated; and in his official capacity is a representative of other members of your

Society, whose grandfathers made a name in those fields. It is with much pleasure that I invite Dr. William Elmer to speak to the toast, "The Medical Society of New Jersey."

RESPONSE BY DR. WILLIAM ELMER.

Mr. President, Members of the Camden County Medical Society and Gentlemen:

I am very sure if the parent Society could be present with us to-night she would most gladly tender her sincere congratulations and cordial greetings to her vigorous and comely daughter—the Camden County Medical Society. Allow me, therefore, as the representative of that honorable body, the Medical Society of New Jersey, to express to you her warmest felicitations and her earnest good wishes for the vigor, prosperity and usefulness of this Society, which to-day so happily celebrates its golden anniversary. The State Society is not unmindful of the fact that this County Society was the first of the District Societies to place the parent Society under obligations, as making her your guest at the annual meeting at Atlantic City, in 1875, attended by the favor of an elaborate reception and banquet and a complimentary special train for the transportation of her members. The following year, the same generous treatment was accorded us at Cape May, and repeatedly since. The courtesy of your hospitality has exceeded that of all other County Societies, and for this let me to-night, also, return to you the State Society's heartfelt thanks.

You have to-day properly honored two of the three distinguished men who officiated at the birth of your Society in 1846—Dr. Cooper and Dr. Taylor—the third being Dr. Thornton. These three were the first accredited delegates to represent Camden County in the assemblage of the Medical Society of New Jersey. And from that time to the present day, right loyally have you served the State Society as regards her membership, her attendance, her interest and her well-being, and you have, in turn, been rewarded by having her highest honors repeatedly conferred upon many of your worthy members, some of whom remain until the present; but some are fallen asleep.

It is delightful, Mr. President, to have this reciprocal cordiality thus remain vested between these two Societies. It is as it should be between mother and daughter, and between all her children—each aiding the mutual interests of the others. Are we not all integral

parts of one professional body? Are not our aims, our endeavors and our rewards the same? Are we not actuated by the same humane principle—the moral and physical elevation and preservation of our fellow-beings? Are we not all following the footsteps of the Divine Physician, whose object in life was accomplished in going about doing good, both to soul and body? To show the humanity of our art, let me quote a sentence from the Constitution of the Medical Society, when it was incorporated in 1766, as expressing the sentiment of the philanthropic men who were its founders, and whose memory we cherish with deepest veneration. They use these words: "Firstly, That we will never enter any house in quality of our profession, nor undertake any case, either in physic or surgery, but with the purest intention of giving the utmost relief and assistance that our art shall enable us, which we will diligently and faithfully exert for that purpose. That each of us will respectively do our utmost to maintain harmony and brotherly affection in the Society, to promote the usefulness of it, both to the profession and to the public, and at all times to support this institution and advance the dignity of medicine."

Are not these the same sentiments, sir, to which each of us subscribe, and in the same spirit as did the originators of our Society? And will we not maintain them as long as life is afforded us, or our right hand retains its cunning? Let to-day's exercises fill us with fresh zeal, incite us with new hopes and earnest desires, not only for the good and the welfare of our respective Societies, both State and County, but that we, like those who have gone before us, may emulate their high-toned example, may have enkindled in us a desire to do more in the interest of our fellow-beings, to cultivate that charity which is twice blessed—to be noble, high-minded, man-loving men.

A Spartan prisoner was once asked by his captors. "what were the principal products of his country." Raising himself with proud dignity, he replied, "In Lacedæmonia we raise MEN." So, gentlemen and fellow-members, let us feel to-night. in view of the worthy heroes who have preceded us in the profession, and of the great duties and obligations that yet devolve upon us in our future lives, that likewise in our medical fraternity we can also say, "In our medical societies we raise MEN."

"THE STATE BOARD OF HEALTH."

The Toastmaster.—The State early recognized the importance and possibility of sanitary science and preventive medicine. It recognized that the health of the people was a part of the care of the State. It instituted the best known method of conserving these interests in the establishment of a State Board of Health, which was directed and systematized by Dr. Ezra M. Hunt, one of the greatest minds, one of the most comprehensive minds, one of the ablest men, as well as one of the most honorable and conscientious this State has ever produced. He has passed to his great reward, and we have to-night the honorable and able representative who is now occupying the high and important position of Secretary of the State Board of Health. He has already shown such ability and interest that he bids fair to equal the great reputation of his illustrious predecessor. It gives me great pleasure, therefore, to introduce to you Dr. Henry Mitchell, of Asbury Park, the Secretary of the State Board of Health.

RESPONSE BY DR. HENRY MITCHELL.

Gentlemen of the Camden County Medical Society:

It is my good fortune to participate in the pleasures of these festivities and to enjoy your hospitality, because I have the honor to represent on this occasion an organization in which you are all much interested—an institution of your own creation. The State Board of Health was established by the Legislature because it was demanded by the physicians of the State, and it has continuously received the active support of the State and County Medical Societies.

Action looking toward the establishment of a central sanitary organization was taken by the State Medical Society as early as 1847, and efforts to this end were repeated in 1848, 1849 and 1853, but it was not until 1866 that these endeavors to promote the public health were attended by success. At that time my honored predecessor, Dr. Ezra M. Hunt, acting as a representative of the State Society, together with his associates on the committee, secured the earnest attention of the Governor, and finally, in 1877, obtained the enactment of a law constituting State and local boards of health. During several years after its establishment the work of the State Board of Health was almost entirely devoted to efforts to call public attention to the value of hygiene, and progress marked each succeeding year.

At last local boards of health were organized in all of the 380 sanitary districts in the State, and to-day a large number of these districts are engaged in studying local conditions and influences which may unfavorably affect the public health, and in many localities the most advanced methods of health protection are in daily use.

The State Board has closely observed the systems in operation in other States and in other countries for the better and more effectual application of the principles of hygiene, and it has been industrious in guiding and encouraging the members and officers of local Boards of Health. An experience of eighteen years has shown that certain departments of the work pertaining to the restriction of the spread of preventable diseases cannot be satisfactorily performed by the local health authorities, and these duties have gradually been undertaken by the State Board. The rule which guides in this relation is that each local Board of Health shall perform all executive functions which affect its own district solely or mainly, and that the State Board shall execute the laws in cases where the public health of more than one sanitary district is endangered by the existence of unhealthful conditions. In accordance with this principle the law has assigned to the State Board of Health the duties of recording vital statistics; supervising the introduction of public water supplies and sewerage systems, under certain conditions; the investigation and suppression of epidemic outbreaks; the supervision of lines of travel; the supervision of the milk supply, and the record of cases of communicable diseases.

Recently the Board has undertaken to supply to physicians and health officers facilities for the employment of the bacteriological method in the diagnosis of germ diseases, and for this purpose a laboratory has been established in Princeton, to which specimens may be sent for examination in cases of suspected tuberculosis, diphtheria and other affections of bacterial origin. This service, conducted free of charge, has been warmly welcomed by physicians, and it promises to become an invaluable and essential aid to practitioners throughout the State. The use of the mails for the transmission of specimens of diseased tissues for bacteriological examination, which has just been granted by our liberal and enlightened Postmaster-General, will practically place the new laboratory at the door of every physician, even in the most distant portions of the State. It is believed that this service will secure the detection of many doubtful cases of infectious

disease, and that health officers will thus be enabled to provide isolation and thereby effectually prevent epidemics, under circumstances which have hitherto been beyond the reach of precautionary rules. It is estimated that with the hearty co-operation of physicians, this service will result in preventing twenty-five per cent. of the cases of diphtheria which now occur in New Jersey, and that the lives of not less than 400 persons can be saved annually from this disease alone.

We are looking forward to more rapid advances in the future in local sanitary administration, and prominent among the improvements in our department should be the adoption of the merit system, otherwise Civil Service rules, for the selection and appointment of health officers. Sanitary inspectors should have an assurance of permanent employment and living wages, and they should be selected after a competitive examination. Efficient officials could thus be obtained.

Permit me to thank you, gentlemen, for the honor done me on this occasion, and to bespeak for the State Board of Health a continuance of the strong and unwavering support which has always been accorded to it by the medical profession.

"THE ORDER OF MILITARY SURGEONS OF NEW JERSEY."

The Toastmaster.—Some years ago, two physicians were sitting in an office in Camden together, having a little chat while enjoying their cigars, talking over some little matters—among them, the best interests of the people—as doctors are apt to do. One of these physicians had had great experience in the service of his country during the Civil War, and the other was prominently connected with the martial affairs of this State. It was suggested that by organization of the military surgeons, much more good could be done for the people, and especially a great deal more for the physicians. Their position in the army and in the various organizations, it was felt, could be strengthened and alleviated, and there was suggested the idea of the Military Order of Surgeons. We have a number of representatives of that Order with us this evening and, in the absence of Colonel Mortimer Lampson, whom we had hoped to hear speak to the sentiment of the Military Order of Surgeons of New Jersey, I have the pleasure o calling upon Major Daniel Strock, the Secretary of the Order and Surgeon of the Sixth Regiment.

RESPONSE BY DR. DANIEL STROCK.

Mr. President and Gentlemen:

It gives me pleasure to speak on this subject, and I am glad that the Order of Military Surgeons has been brought to your attention in this manner. As the toastmaster has said, a number of the members of this Society are members of the Order, and its interests are their interests; and therefore we feel that, to a certain extent, the welfare of the Order is the concern of all present. There are several members here who are members of the Order of Military Surgeons by virtue of their connection with the National Guard of the State of New Jersey and by virtue, also, of their connection with the Volunteer service of the United States, and for that reason we pay a proper toast to these men. As members of the Order from this county, I may mention Dr. H. Genet Taylor and Dr. E. L. B. Godfrey, who were the original members from this Society, Drs. Orange W. Braymer and Wilson Gill Bailey.

Now, it is of interest to us to know that this is the first Order of Military Surgeons organized it this country – the first State military organization of surgeons to be formed in the United States; and it is also of concern to us that the inception of the Order was in Camden, and to Dr. Godfrey is due the credit of having conceived the idea of the formation of this Society; and I may say with perfect truth that the plan was perfected in Dr. Taylor's office. In an informal talk between Dr. Godfrey and Dr. Taylor, the outlines of the Order were formulated, and as a result of that conversation we have to-day the Order of Military Surgeons of New Jersey; and further than that—showing you the far-reaching effect of what seemed to be a small beginning—there have been subsequently formed other similar organizations throughout the various States of the Union where the National Guard is in existence; and still further, there has been organized the National Association of Military Surgeons of the United States, with a membership not alone composed of surgeons connected with the State Militia, but of the regular army. We may take a certain pride in this, I think, because, without the institution of the original society in this State, in all probability the Order would not yet have been formed in the United States.

As officers of this Order we have had the pleasure of having had Dr. Godfrey to fill the chair of President, and Dr. Taylor was the first Vice-President. The first President of the Order was

Surgeon-General John D. McGill, one of our distinguished guests. Another guest, Dr. Franklin Gauntt, of Burlington, N. J., has just completed a term of service as President. It is evident the Order is quite well represented here to-night by Presidents, Vice-Presidents and members, notwithstanding it has been in existence only a few years. This Order has undoubtedly had a beneficial effect upon the morale of the Guard of this State, and it is largely due to Surgeon-General McGill that very great reforms have been made in the medical department of the National Guard. It was he who conceived the idea of an hospital and ambulance corps. New Jersey was one of the first States to organize such a corps, which was done under his supervision.

While upon this subject, I may call attention to the fact that great advances have been made in the medical department of the National Guard, more particularly by the Surgeon-General taking the initiative and insisting upon certain reforms being effected. It was formerly the custom to appoint surgeons without an examination, and still later it was the custom to appoint them with scarcely any examination; and now, as a result of his insistence, it is a very difficult thing to pass the ordeal of the examination. In this arm of service to our State, the physicians have always borne an important part, and it is well that the standard of proficiency should be high.

In conclusion, I can assert that the Order of Military Surgeons of New Jersey will always be the partisan of the Surgeon-General in his endeavor to increase the efficiency and add to the dignity of the military surgeon.

"OUR GUESTS."

The Toastmaster.—In reply to the toast of "Our Guests," I am requested to call upon Dr. J. Orlando White, a gentleman well known to you all.

RESPONSE BY DR. J. ORLANDO WHITE.

You will see by reference to the programme that Dr. W. H. Ireland is assigned to speak to this toast. We regret his inability to be present this evening. I suppose they called on me because of my venerable age. I am so old that I have been twenty-one years a retired physician. I am so old that the Society has honored me, as you will see on the membership list, by placing me on the superannuated list.

I wish to say to our guests, one and all, whether from other societies, whether from the management of the Cooper Hospital, the State Society, the Military Department, the Judicial Department, or the Department of Medicine, that the Camden District Medical Society, through me, extends to you greeting and its hearty appreciation of your presence here, and hopes you may join with us again, perhaps, at the one hundredth anniversary.

"THE JUDICIAL ASPECTS OF THE CASE."

The Toastmaster.—It becomes a painful duty, almost invariably, during a portion of our professional career, to take the uncomfortable position of the witness-stand; and I never appear before the Supreme Court of New Jersey without congratulating myself that we have on the Bench an illustrious member of this Society, a man who is not only capable of protecting members of the profession from any of the wiles of the learned profession of law, who might find it to their interest, or to that of their clients, to subvert the representative of this profession upon the stand not only is he equal to that, but what is more satisfactory, he is equal to understanding everything that the doctor says and seeing the force of his testimony. The State, the profession and this Society have been greatly honored, and the community, we think, greatly benefited in this representative. He is so well known to you that an introduction is not necessary, but it will give us great pleasure to now hear from Judge Charles G. Garrison.

RESPONSE BY JUSTICE CHARLES G. GARRISON.

Mr. Toastmaster and Gentlemen:

The prospect of facing more than one learned profession at a time, recalls a scene from a play that was given this winter in Philadelphia. Now, for the benefit of those who did not see it, I will state that a Senator of the United States who, for twelve years, had not visited a Western town where he had lived as a sort of a quasi cowboy, comes back and meets a little girl whom he had known before, and she says to him: "Do you remember the time that three bears came up to you as you were coming home and you only had one cartridge left, and you killed them all?" He says, "Are you sure it was I that killed them all?" "Yes, you killed them all." "Are you

sure there were three of them?" "Oh, yes, you told me there were three." "And I killed them all with one shot? Good shot, wasn't it?" Well, now, what one thing, in other words, in what one particular can anything be said about the learned professions that would be true equally to them all? Take the one that perhaps I know at present the best—take the law. There is the practitioner of law, the active practitioner and there is the student of law, or the Judge, who is not personally interested in the result of his investigation. Now, at once you can see that there must be a difference between the quality of minds that is evolved by him who only cares to discover the absolute truth, no matter whom it may hit, and he who wishes solely to carry a point, whether it be true or not, and no matter whom it hits. Take theology—there must be a difference between the student of theological science and metaphysics and moral laws, and that representative of theology who must fill a certain charge in order to raise a certain salary.

Take the medical profession—there must be and there is a difference between the student in his laboratory—between the experimenter and a man of practice, who has to go abroad and deal with people, who cannot always tell the truth, and must be politic—must win their practice; and how often does every physician regret that he cannot act in his dealings with the people that he has to treat as if he were dealing with the absolute laws of nature, when he has only one thing to consider, and that is the absolute truth.

Now, then, what is the difference? It is that when we come to deal with the personal equation, when we come to deal with humanity, something more is called for than scientific knowledge; something more is called for than earnestness. You come then to deal with a moral quality which is higher than that of a theologian, higher than that of a Judge, than that of the Bar, or of the scientist. I doubt if such stirring words were ever said of the medical profession as those of Williams, when he closed his address to his students at the end of the year, and said: "Gentlemen, you alone of all of the professions, study to deal with your fellowmen, mentally, morally and physically."

"THE PRESS."

The Toastmaster.—Gentlemen, we all recognize that one of the greatest educators of the present day, the force that makes public opinion, that has the power to make and unmake men, to crush us or

to make us greater than we really are, is represented in the press; and we have with us this evening the pioneer, the Nestor of the profession of journalism in Camden, with whom you are all acquainted. It gives me great pleasure to call upon Hon. Mr. Bonsall, of the Camden *Daily Post*, to respond to "The Press."

RESPONSE BY HON. HENRY L. BONSALL.

Gentlemen of the Camden County Medical Society:

My idea of it is that it is getting late, and I do not propose to inflict upon you any prolonged talk about the press this evening. I wouldn't if I could, and I couldn't if I would. As I am getting older, I realize a difference. Some years ago, I considered it quite a compliment to be called upon to respond to a toast of the press—actually went out for that purpose. The idea of a man going around complimenting his own words and talking about them. That isn't a good way for a press man; it isn't a good idea, and I don't propose to do so—not at this late hour, and besides, I don't think this audience needs any information upon that point. You all know what the press is and what it is not, and I could not convince you any better than you understand it, of its excellencies and its deficiencies. I feel more like talking to these doctors; I feel at home among them. I have been here a good deal, and I feel as if I had a right to be here. I want to say, in addition to all the rest that has been said, someone asked me if I was going to get off my old speech that the medical profession of Camden is the only thing that educates the conscience in its mental and intellectual particular. I say it has done more to develop Camden than any other institution—lawyers, ministers, school teachers and everybody else combined. It is the only Society that gets together, rubs up against each other, makes the sparks fly by the attrition. I don't find that among lawyers to any great extent; don't find it in the church to the same extent, don't find it to the same extent anywhere as among the doctors. I think that is a great deal to say; I never tire of saying it as long as I come among you, and if you like to hear it you can invite me again and I will tell it to you again. As far as the press is concerned, you don't want to hear anything about that and I couldn't tell you any more than you already know.

"OTHER MATTERS."

The Toastmaster.—We have present a member of this Society who has never failed to infuse an enthusiasm in the bosom of his auditors on any subject that he has undertaken to present; whose words to-day you saw thrill the vast audience at the Temple Theatre; who for many years has been a prominent and useful figure in our midst, closely identified with all the great movements of our profession, and particularly of this Society. I have the honor to call upon Dr. James M. Ridge.

RESPONSE BY DOCTOR JAMES M. RIDGE.

Mr. President, and Gentlemen of the Camden County Medical Society:

The medical profession, as you call it, has its origin in the miseries of the human family. It never would have been instituted or existed but for the miseries of man. And going further into your learned professions, law would never have been instituted except for the controversies of the people; if they could have settled their controversies without the aid of a lawyer, the profession of law would never have existed. Theology could not exist without controversy. In my conception of the actualities of medical societies, let me say that I will accord to the Camden County Medical Society an effort, a perseverance, a determination that is second to none in any State. The men of this Society are men who are workers. They may not be orators, yet have their fame in the result of accomplishing everything that is good for humanity, and everything that is scientifically correct in the medical profession, not only medically but surgically. Therefore, I can only congratulate this Society on its semi-centennial anniversary as standing – and I have been over the whole column—second to none. I say it without any fear of controversy; I say it with love to the Society; I say it with honor to the Society, that the Camden District Medical Society can stand alone without any assistance from any other Society in any other State.

A TESTIMONIAL TO SCULPTOR ENGDAHL.

The Toastmaster.—It is a fitting moment to allow the beautiful bouquet that has been provided for our eminent sculptor to be presented, and I have the pleasure to call upon Dr. O. B. Gross.

PRESENTATION BY DR. ONAN B. GROSS.

Mr. President and Gentlemen:

We must not forget one individual, among others, who has aided very materially in bringing about this successful issue, and on behalf of the Medical Society I take pleasure in presenting, with its compliments, this token of appreciation to the sculptor, Mr. Franz L. Engdahl. On behalf of the Society, also, I desire to express our thanks for his endeavors in our behalf.

THE COOPER HOSPITAL.

The Toastmaster.—Gentlemen, nothing so pre-eminently stands before us as representing the dignity, usefulness and grandeur of the work of our profession—nothing stands before us more prominently than that magnificient charity which has been established in our midst by the men of whom we have heard to-day. The appreciation of 12,000 maimed, sick and blind—for even the blind have been restored —that find in that institution relief for their sufferings, when they are unable by the environment and the unfortunate conditions of life to procure the necessary attention in the hour of adversity and misery, testify to the great work that is being daily done. It is one of the grandest sights, to a man whose heart throbs with sympathy for humanity and with its sufferings, to see the work that institution has done. It can never be too much appreciated by the people of this community. It is a fitting recognition of that institution that its representative, the President of the Board of Managers of Cooper Hospital, be requested to favor us with in a few words at this time. I have the honor to call upon Mr. Augustus Reeve.

RESPONSE BY MR. AUGUSTUS REEVE.

It has been a great pleasure to me to be present with you this evening. The members of this Society are making history, and I ask of you that the history should be a correct one. Perhaps you are not all aware of the exact condition of the Cooper Hospital, and I want to call your attention to this fact, that to Dr. Richard M. Cooper belongs, in a large measure, the honor of that institution. He it was who appointed the incorporators of the Cooper Hospital, and not alone to Dr. Cooper belongs the honor and credit, but a great proportion of it belongs to two ladies. To Sarah Eastlack Cooper and

Elizabeth B. Cooper are due the honor of enabling us to make Cooper Hospital what it is to-day and what we hope to make it. By the means they placed at our disposal, we have been enabled to do what we have; and we therefore ask you that in the future you should give them the honor which is justly due them.

THE SOCIETY'S GUESTS.

The following guests honored the Society with their presence at the ceremonies attending the celebration, and at the banquet: General John D. McGill, Surgeon-General of the National Guard, New Jersey; Hon. Charles G. Garrison, Justice of the Supreme Court of New Jersey; Dr. William Elmer, President of the Medical Society of New Jersey; Dr. Henry Mitchell, Secretary of the State Board of Health of New Jersey; Mr. Augustus Reeve, President of the Board of Managers of the Cooper Hospital; Mr. Richard H. Reeve, Secretary of the Board of Managers of the Cooper Hospital; Dr. Franklin Gauntt, member of the State Board of Health of New Jersey; Hon. H. L. Bonsall, editor of the Camden *Daily Post;* Franz L. Engdahl, sculptor; Dr. Henry Elmer, chairman of the Standing Committee of the Medical Society of New Jersey; Dr. William H. Edwards, Williamstown, N. J.; Dr. H. E. Stout, Wenonah, N. J.; Dr. George E. Reading, Woodbury, N. J.; Drs. M. West, William W. Kain, Levi B. Hirst, Milton M. Osmun, William I. Kelchner, Paul M. Mecray, Marcus K. Mines, Joseph L. Nicholson, William E. Miller, of Camden, N. J.

MEMBERS WHO WERE PRESENT.

The following members of the Society were also present; Drs. Joseph S. Baer, Orange W. Braymer, Wilson G. Bailey, Philip W. Beale, Dowling Benjamin, Henry E. Branin, Duncan W. Blake, John K. Bennett, S. G. Bushey,

[illegible] A. Davis, Eugene E. De Grofft, Clarence [illegible] Dodges, John W. Donges, John G. Doron, Joel W. F[illegible] [illegible] R. Godfrey, Onan B. Gross, J. J. Ha[illegible] [illegible] Franklin L. Horning, Joseph E. H[illegible] [illegible] Izard, C. H. Jennings, W. B. Jenn[illegible] [illegible] W. H. Kensinger, John F. Le[illegible] [illegible] Ahab H. Lippincott, Alexa[illegible] [illegible] J. W. Marcy, Alexander McAlis[illegible] [illegible] Howard F. Palm, William R. [illegible] Sophia Presley, James M. Ridg[illegible] [illegible] H. H. Sherk, Henry A. M. Smith, [illegible] David Strock, John R. Stevenson, D. [illegible] W. A. Westcott, E. B. Wood[illegible] [illegible] Grant E. Kirk, W. H. Wingender.

TO WHOM HONOR IS DUE.

It is meet to accord to the Committee of Arrangements and Entertainment that is so justly their due, for the efficient service rendered the Society in perfecting the details for the memorable event. Every member gave of his time to the work during the busiest season of the year, and labored unremittingly to make the occasion a success in every particular, and the fact that every event of the programme was timed in advance with such accuracy that the public exercises closed at exactly the hour prearranged is due to the forethought and accurate judgment bestowed upon the most minute details.

REPORT

OF

STANDING COMMITTEE.

William A. Davis, Eugene E. De Grofft, Clarence B. Donges, John W. Donges, John G. Doron, Joel W. Fithian, Edmund L. B. Godfrey, Onan B. Gross, J. J. Haley, Conrad G. Hoell, Franklin L. Horning, Joseph E. Hurff, William H. Iszard, C. H. Jennings, W. B. Jennings, William S. Jones, W. H. Kensinger, John F. Leavitt, Benjamin S. Lewis, Ahab H. Lippincott, Alexander Marcy, F. W. Marcy, J. W. Marcy, Alexander McAlister, Alexander M. Mecray, Howard F. Palm, William R. Powell, Edward Phelan, Sophia Presley, James M. Ridge, E. A. Y. Schellinger, H. H. Sherk, Henry A. M. Smith, Jacob F. Stock, Daniel Strock, John R. Stevenson, D. M. Stout, H. Genet Taylor, W. A. Westcott, E. B. Woolston, Adriette LeFevre, Grant E. Kirk, W. H. Wingender.

HONOR TO WHOM HONOR IS DUE.

It is proper to accord to the Committee of Arrangements, the credit that is so justly their due, for the efficient services rendered the Society in perfecting the details for this important event. Every member gave of his time freely during the busiest season of the year, and labored unselfishly to make the occasion a success in every particular; and the fact that every event of the programme was timed in advance with such accuracy that the public exercises closed at exactly the hour prearranged for, attests the forethought and accurate judgment bestowed upon the most minute details.

REPORT

OF

STANDING COMMITTEE.

REPORT OF STANDING COMMITTEE.

A review of the Transactions for several years past, would refreshen the memories of the members of this Society, as to the various methods devised by former Chairmen of your Standing Committee, to insure a complete and interesting annual report. At one time, circulars with carefully prepared topics have been sent to the District Society reporters, to be distributed by them to the members; at another, directly to the members, and again, to the reporters. Early in this year, your Committee addressed letters to each of the reporters, the gist of which was an earnest request that they should commence the collection of the material for their report at once, and not postpone preparations till within a few weeks of this meeting; that, probably, more papers could be obtained, were members notified earlier, and, that they should devise some method for a fuller and more accurate report.

The object of this was two-fold: to remind reporters that their work should extend throughout the year, by as general a knowledge as possible of medical affairs in their districts, and as there might be some change suggested by the Committee on Revision of By-Laws, as to duties of the Standing Committee at this meeting, the result of this appeal might aid them.

In April, the usual circulars were forwarded to the reporters. Whether the extra effort made by your Committee availed anything, would be difficult to say, but it

may be mentioned that the reports came in earlier, showing less hurried preparation, and some counties acknowledge an increased number of replies. We are of the opinion that reporters are faithful to their duties, but that the members of the societies are at fault, in compelling them to comply with By-Laws of their society and this Society, without offering them any assistance whatever. Seventeen reports have been rendered, while no response has been received from Atlantic, Bergen, Ocean, Passaic. With thanks, then, to those who have aided us, your Committee tender you the following report:

New Jersey is again to be congratulated upon another year free from any serious epidemic or outburst of any pestilential disease. From Cape May to Sussex, the reports claim an unusually healthy twelvemonth, and Cumberland, admitting that the healthfulness is not "alarming," notes an unusually healthy period, while Warren insists that the past year has been, beyond doubt, the best in its history, as there is scarcely a reported death from an epidemic, contagious disease or hereditary taint; that old age and senile decay are the only enemies against which the physicians have to contend. Boards of Health should take encouragement from these facts, while the thought suggests itself, may not the stringency of the times, compelling a closer adherence to the necessities of life, conduce largely to a more hygienic mode of living.

One disease, which may truly be called epidemic, has existed throughout the State, viz.: rubeola. Scarcely a county but reports it, though usually of a mild form, and with little or no mortality. The exceptions are in Moorestown, Burlington County, where one case died within twenty-four hours, in coma, and a second case,

from an uncontrollable dysentery, the stools averaging one hundred daily for several days. Essex reports some cases of a severe type, and calls attention to the large number of cases of second invasion in persons supposed to be immuned by previous attacks. The reporter from Hunterdon County also calls attention to the same, as occurring in that county. So general did the outbreak become in Asbury Park, that all quarantine restrictions were removed as useless. Four hundred cases are reported in Newton.

RUBELLA and PAROTIDITIS have existed to some extent in several localities, and in the endemic of twenty-one cases of the latter, occurring in the Children's Hospital, in Camden, Dr. Mecray claims to have demonstrated the Lavaran coccus in the blood and in the secretions from the glands.

Our citizens have not escaped entirely the annual visitation of "la grippe," and while its onslaught was not so sudden, nor its attacks so severe, yet the unmistakable ear-marks could be found in its symptoms and sequellæ.

Cape May reports complications with pneumonia, and Monmonth a development of the nervo-rheumatic type.

SCARLATINA is reported by few. Dr. Barker mentions a threatened epidemic in a school, in Morristown, controlled by promptly isolating all cases which could not be quarantined at home, in the annex of the Municipal Hospital. The source of this endemic arose from the arrival in Morristown, of a family in which a child had died from scarlatina. A child in the family visited, soon suffered from a mild attack, but was allowed to return to school in two weeks, and soon many others were attacked. Forty-three cases were treated as above

stated, with two deaths. Dr. Hurff reports four cases among children in the Camden Alms House; promptly subjecting them to quarantine in an out-building, however, prevented any further increase. Dr. Snyder, of Greenwich, reports a limited endemic in Greenwich, in the latter part of 1895.

VARIOLA.—But two cases are reported and those occurred in Burlington, in the same family—one in an unvaccinated adult and the other in a vaccinated child. The contrast between the malignancy of the former and the mildness of the latter was very marked.

DIPHTHERIA has existed quite generally, but not always of a virulent type. Dr. Sullivan reports fourteen cases as occurring in and about Shiloh, with two deaths, and in Salem, seventy-eight cases were reported to the Board of Health, with a mortality of fifteen per cent. The origin of this latter outbreak was direct contact with a child from a neighboring city, not fully recovered. In Mercer, Dr. Johnson gives eight per cent. as the mortality from it in Heightstown, while Trenton's mortality was less than previous years.

TYPHOID FEVER.—About the usual number of cases are reported as having occurred throughout the State. Dr. Halsey mentions a case in which three distinct relapses occurred after a complete intermission of a week or ten days. Many cases occurred in Raritan, due, possibly, to the drinking of well-water, and in one case, a post-mortem revealed the characteristic lesions, and also an ulcerated appendix, perforated by a small piece of egg-shell. Haddonfield escaped with very few cases, according to the population (three in a population of

2,800), which Dr. Stevenson suggests, is due to the supply of water coming from deeply-driven wells, while the surrounding country is supplied with surface water. Dr. Herold, of Newark, claims to have unearthed a new medium for the transmission of the typhoid bacillus. Large quantities of river sand had been used in the extensive paving contracts of the city, from which the odor of sewage was readily discernable. An analytical investigation showed that the sand contained free and albuminoid ammonia, and a bacillus similar to that of typhoid, and also that of communis coli. This is probably the explanation of the marked increase of typhoid in 1895. In this connection might be mentioned the high favor in which the Brand method of treatment is held by Drs. Taylor and Godfrey, of Camden.

MALARIAL FEVER.—But little mention is made of the malarias. Dr. Hunter notes the marked improvement around Newbold, Gloucester County, due to the draining of the swamps and marshes into the numerous lakes, and Dr. Day reports the malarias, hitherto unknown in the vicinity of Butler, as quite prevalent, assigning as the probable cause, the making of artificial lakes throughout that section.

In regard to the experience with the newer remedies, Drs. Taylor, Gross and Oliver speak in satisfactory terms of the hypnotic effect of trional, and Dr. Oliver has succeeded in checking the tremulousness of paralysis agitans by its use. Of Aseptolin-Edison, Dr. Condict is favorably impressed with its use subcutaneously, and presents a paper illustrative of its good effects in three cases of phthisis. Drs. Norton and Coston report indifferent results, while Dr. Baldwin obtained no results in twelve

cases persistently treated. Several cases of chronic malarial poisoning have been much benefited by its use in Union County. Proto-nuclian meets with favor from Dr. Janes, of Pennsville, in old ulcers; from Dr. Waddington, in diphtheria; Dr. Judson recommends it in phthisis, bronchitis and anæmia; Dr. Fisher, in broken down constitutions, but Dr. Hinckley, in charge of the Hospital for the Insane of Esssex, realized no results in fifty cases in which it was exhibited for long periods. Dr. Taylor mentions creosote, by enema, for tuberculosis. Dr. West, sodium sozoiodolate for insufflation in ulcerative anginas; tanningen as pleasant and effective in diarrhœas. Dr. English speaks well of pyrozone and carbolate camphor, and Dr. Love of diuretin in cardiac disease, with nephritis. Dr. Robertson reports a prompt cure of traumatic tetanus by the sole use of antitoxin serum.

IMPROVED SANITATION.—The physicians, as well as the Boards of Health, are still unceasing in their endeavors to suggest plans for the improvement of the sanitary condition of our cities and towns, and to urge towards completion, plans already begun. Of the many important improvements accomplished, we note the passage of an ordinance for supplying Camden with water from sunken wells in the vicinity of Delaire, and although it is still from the Delaware river, it is expected to be much improved by filtration. Newark has plans in view for a better water supply. The reporter of Hudson County calls attention to the existence of a great nuisance—a huge manure pile—near the railroad shops at Hackensack, offensive to all who come and go to and from New York over those roads, but also mentions the fact that a part of the county is enjoying the luxury of pure water from the Pequannock river, instead of from the

pestilential Passaic, and that the commission appointed to investigate and remedy the cause of the Passaic's pollution, is making most commendable efforts so to do.

In Trenton, a Municipal Hospital and Garbage Crematory have been erected. At Bound Brook, the proposed sewer system has been completed. In Bridgeton, a sewer system is being agitated, and has been made partially effective by private parties. In Elizabeth, an important step is soon to be taken—the conversion of Elizabeth river into a covered trunk sewer. It is to be hoped that the previous efforts made in this direction will culminate in success. A new contagious hospital is to be built.

The replies to the question, "Is the therapy of antitoxin serum, nuclein solution and thyroid extracts so fully established as to receive the endorsement of the profession?" are varied. Of the clinical therapy of antitoxin, but little has been added to the report of last year. The serum has been more generally used in diphtheritic cases, and in the large majority of them, especially when used early, appears to have mitigated the virulence of the disease. In Camden, Dr. Presley used it, but also energetic measures, locally, half hourly, allowing but four hours sleep at night, but adds that he is not all convinced that antitoxin mitigated the virulence of the poison. Dr. Sherks was successful in one case; no result in another. Dr. Taylor thinks that the results do not prove it applicable to all cases; however, those cases treated with antitoxin show more favorable results. Dr. Bramer treated three cases with it, with one death, and forty cases without it, and no deaths. Dr. Sullivan was pleased with it in the treatment of his fourteen cases, but Cumberland's reporter gives it as the opinion of phy-

sicians that it should be tested exclusively of all other remedies.

To recapitulate the conclusions expressed by the several reporters would occupy too much of your time and be too much of repetition. They may be condensed by saying that it is very generally endorsed, and that cases treated with it apparently have a more successful termination than those without it.

The reporter from Burlington has taken the pains to tabulate statistics of all the cases occurring in that vicinity, which may be of interest. Of 68 cases, there were 8 deaths, but in 2 cases death occurred within six hours after the first injection and should be excluded, reducing the mortality to 9%. It is interesting to notice that the mortality increases in proportion to the number of hours elapsing between the initial symptoms and the antitoxin injection. Of 26 cases in which the injection was given within twenty-four hours, the mortality was $3\frac{8}{10}$%; of 19 in which the injection was given within two days, the mortality was $10\frac{1}{2}$%; of 9 on third day, 11%, and of 11 on fourth day or later, 19%, emphasizing the fact that, to be of positive value, the serum should be used before thorough intoxication has taken place. He also calls attention to the large percentage, 85, of recoveries, in which the larynx became involved. Two cases in which the serum were used late, died suddenly of cardiac paralysis, although apparently convalescing.

The nuclein solution and thyroid extracts have had a more limited trial. Dr. Presley has patients to whom he is administering proto-nuclein and thyroid extract, and he can only say "they are doing well." Dr. Davis thinks they are still on trial. Dr. Baer thinks thyroid extract of especial use in the nervous disturbances of the menopause.

Dr. Hinckley, of Essex, obtained no results from the continuous use of nuclein solution in fifty cases, but thinks the thyroid extracts of use in selected cases, in which Dr. Newton coincides.

Dr. Ewing, of Hunterdon, thinks antitoxin and thyroid extract fully established, and Dr. Sproul would wait further confirmatory evidence. Dr. Romaine perceives no effect after faithful use of nuclein solution. Dr. Best thinks antitoxin an admirable prophylactic.

Drs. Farrow, Lewis, Stiger, Becker and Condict, of Morris, reply in the negative. Dr. Barker thinks the nuclein solutions are certain to command the esteem of physicians.

In Sussex, Dr. Strailey replies, "No," and Dr. Gausbeck, "Unhesitatingly, yes." Many unusual and interesting cases have been given, some in detail, with accompanying papers, but most of them are merely mentioned by name; for these you are referred to the county reports.

MEDICAL SOCIETIES.—Camden County Medical Society celebrated its fiftieth anniversary on February 11, 1896, with appropriate ceremonies. Through the courtesy of the Board of Managers of Cooper Hospital, a reception, followed by a lunch, was held in that institution, and from thence the Society and invited guests proceeded to Temple Theatre, where commemorative exercises were held, including the unveiling and presentation to the Society, of the busts of Richard Matlack Cooper and Othniel Hart Taylor, two of the charter members. A banquet was served in the evening, at which many eloquent responses to toasts were heard. A full account of the celebration has been obtained and will appear in the Transactions.

Hudson County Society, with added membership and increasing interest, proposes to hold one general meeting, but to call special meetings as often as occasion demands, hoping, in this way, to form a number of medical clubs, with limited membership, and thus promote more general scientific study.

We notice, with regret, the remarks of the reporter of Middlesex County Society, "that comparatively little interest is taken in the meetings, and it seems impossible to rouse the members." We earnestly hope this condition of affairs will soon be remedied, and urge upon the members of that society a renewed interest, not only for themselves, socially and professionally, but for the honor and well-being of our State Society.

Other Societies report continued interest and growth in membership. Cooper Hospital, Camden, reports 552 cases treated in the wards and 11,668 in the dispensary during the past year. Some changes have occurred in the hospital staff. Dr. Paul Mecray has been appointed Pathologist in place of Dr. George T. Robinson, deceased; Dr. Braymer, to the Surgical Department, vice Dr. Wells resigned, and Drs. Benjamin and Baer have been added to the Gynæcological Department.

The sixth annual commencement of the Training School connected with the hospital, was held June 1, 1896, with a graduating class of fifteen. Dr. J. B. Wells delivered the address.

At the Camden City Dispensary, 9,040 have been treated.

Dr. T. T. Price, who has been officer in charge of the U. S. Marine Hospital, at Tuckerton, for seventeen years, reports the discontinuance by the government of that service, on account of the decrease in the number of mariners in the coasting trade.

THE FOLLOWING PAPERS HAVE BEEN RECEIVED:—

"A Human Monster," with three photographs, by H. E. Branin; "Five Cases of Fractured Skull," by J. L. Nicholson; "Operation for Metritis and Pelvic Peritonitis," by J. F. Hurff; "Appendicitis," with report of cases, by Alex. McAlister; "Acetanelid, its Uses, Medical and Surgical," by Charles S. Heritage; "Three Cases of Appendicitis," by F. M. Corwin; "Three Cases Treated by Aseptolin-Edison," by J. W. Condict.

NECROLOGY.—Since our last meeting the ranks of our profession have been reduced by the following deaths:

Camden County.—George Taylor Robinson, of Camden, June 28, 1895.

Essex County.—Emma W. Edwards, of Clear Water, Fla., March 29, 1896; Charles F. J. Lehlbach, of Newark, August 14, 1895.

Gloucester County.—L. F. Halsey, of Swedesboro, July 7, 1895.

Mercer County.—C. H. Dunham; W. W. I. Phillips, Hampton, Va., April 27, 1896.

Monmouth County.—Alex. Betts, of Red Bank.

Sussex County.—Levi D. W. Miller, of Newton, July 21, 1895.

Union County.—Job Symmes Crane, of Elizabeth, March 26, 1896; David H. Miller, of Elizabeth, December 30, 1895; J. J. Daly, of Rahway; Thomas L. Hough, of Elizabeth, June 12, 1896.

Obituary notices of these will appear in the Transactions.

There was less delay in the issuance of the Transactions for 1895, but additional promptness of contributors will ensure still earlier delivery. Having performed the

duties as prescribed by the By-laws, permit your Committee to make two suggestions. As it is probable that in the revision of your By-laws a Standing Committee will be retained, though, perhaps, with their duties modified, we would suggest: First, that the District Societies reappoint their reporters from year to year, or for so long a time at they perform their duties satisfactorily. We know it is the custom of some Societies to elect a new one annually. We would urge against this method, that a reporter is better able to meet the requirements of his office during the second year than the first, and his efficiency may be increased by a prolonged term of service. Second, that reporters make it their duty to keep fully posted in the medical history of their counties throughout the entire year, and not postpone till within two months of the annual meeting of this Society, collecting material with which to furnish the Standing Committee a report.

Respectfully submitted,

H. W. ELMER,

Chairman.

APPENDIX

TO

REPORT OF STANDING COMMITTEE.

In Memoriam.

GEORGE TAYLOR ROBINSON, M. D.,

Born March 15, 1861,
Died June 28, 1895.

EMMA W. EDWARDS, M. D.,

Born June 5, 1845,
Died March 29, 1896.

CHARLES F. J. LEHLBACH, M. D.,

Born March 16, 1835.
Died August 14, 1895.

LUTHER F. HALSEY, M. D.,

Born October 25, 1843,
Died July 7, 1895.

In Memoriam.

C. H. DUNHAM, M. D.,

Born March 24, 1839,
Died October 16, 1895.

W. W. I. PHILLIPS, M. D.,

Born February 29, 1829,
Died April 27, 1896.

ALEXANDER BETTS, M. D.,

Born November 1, 1833,
Died August 4, 1895.

LEVI D. W. MILLER, M. D.,

Born February 15, 1836,
Died July 21, 1895.

In Memoriam.

JOB SYMES CRANE, M. D.,

Born April 23, 1825,
Died March 26, 1896.

DAVID H. MILLER, M. D.,

Born May 21, 1858,
Died December 3, 1895.

J. J. DALY, M. D.,

Born May 26, 1852,
Died April 14, 1896.

THOMAS L. HOUGH, M. D.,

Born——1832,
Died June 12, 1896.

OBITUARIES.

GEORGE TAYLOR ROBINSON, M. D.

BY DANIEL STROCK, M. D.

Dr. George Taylor Robinson, the son of Heber Case Robinson and Martha Neely Taylor Robinson, was born in the city of Washington, D. C., March 15, 1861. He was the great-grandson, on his mother's side, of Capt. George Taylor, First Company of Foot, Second Battalion, Pennsylvania Troops, who served in the War of the Revolution; and on his father's side, of Justus Adam, Kaiser of Basle, Switzerland, who served under Napoleon Bonaparte.

He was taught at home until the age of nine years, when he entered school. In 1873 the Doctor, accompanied by his mother, spent some time in Europe for recreation and study, and on his return took up his residence in Camden, N. J. At sixteen, after graduating from his academic course, he began the study of French and German, and about this time established a laboratory in the lower section of this city, where he experimented in electricity, a record of which indicates a thorough knowledge of that science. Several of the effects discovered by him have since been utilized in perfecting various electrical devices. This laboratory was the Doctor's night workshop. The late hours he remained induced his family and intimate friends to persuade him to close it and remove his apparatus to his home.

He entered the medical department of the University of Pennsylvania at the age of eighteen, graduating on his twenty-first birthday, March, 15, 1882, being awarded the alumnæ prize for his theses, "Visual Purple." The original work contained therein attracted the attention of the late Prof. Joseph Leidy, and an intimate friendship ensued, which continued to the date of the Professor's death.

In 1883 he again visited the continent of Europe for purposes of study. In 1889 he began the use of the spectroscope in medicine, and

he subsequently read several important papers before the Camden County and Camden City Medical Societies, detailing the results of his labors with this instrument. Many prominent physicians passed hours in his study listening to the results of his work, and at their solicitation he began a treatise upon spectroscopy of the blood, which, unfortunately, is unfinished.

The Doctor was indefatigable in his attention to those who entrusted him with the care of their health. In the most inclement weather, night or day, he responded to their call, to the utter disregard of his own condition, and his patients, as a rule, became warmly attached to him.

Dr. Robinson was a passionate lover of music, the study of which he began when but a child, and at the age of twelve years was the author of several musical compositions.

His interest in all departments of medical work was unfaltering, and he contributed a large share of his time to the various institutions with which he was connected. In 1889 he was elected pathologist of the Cooper Hospital, which position he held at the time of death. He was for years one of the physicians of the Camden Home for Friendless Children and pathologist of the Camden City Dispensary. In 1890 he was selected to lecture to the pupils of the New Jersey Training School for Nurses upon "General Nursing," and in 1891 he was assigned to the lectureship on physiology. He possessed a happy faculty of imparting instruction, and his lectures were listened to with deep interest.

He was a thorough anatomist and pathologist, and with the microscope was a constant worker, using the instrument daily as an aid to diagnosis. He was a member of the Camden District Medical Society and its Treasurer for several years. He was also a member of the Camden City Medical Society and its President in 1893. He was one of the originators of the Camden Microscopical Society in 1877. He was formerly assistant surgeon of the Sixth Regiment, N. G. N. J.

For several years past Dr. Robinson realized his condition of ill health, and knew that he walked in the shadow of death, having organic heart disease. Notwithstanding, he continued to meet the numerous demands that were made upon him with a cheerfulness that was ever such a marked characteristic of his nature. He was elected a delegate from the Camden District Medical to the New Jersey Medical Society, and expected to be present at the meeting held

at Cape May, June 25, 1895. But early in the morning of that day he was suddenly seized with cardiac weakness, and remained in a state of collapse until Friday morning, June 28, 1895, when death cut short his promising career.

EMMA WARD EDWARDS, M. D.

Dr. Emma Ward Edwards was born in Newark, June 5, 1845. She entered the first class of "The Woman's Medical College of the New York Infirmary," and was graduated in 1870, receiving the honor of the valedictory. For a time after graduation she was connected with the college in various capacities. She then engaged in general practice in Newark, until her marriage with Arthur M. Edwards, M. D., when she removed to Berkley, California, and gave up the practice of her profession. In consequence of the illness of her husband she returned to Newark and resumed practice and became a member of this Society in April, 1880.

Dr. Edwards was visiting physician to the Home for Aged Women. She was also one of the Board of Managers of the Children's Aid Society and the Society for the Prevention of Cruelty to Children, and was greatly interested in the work. Dr. Edwards entered the ranks of the medical profession at a time when the opinion of medical men, for various reasons or pretexts, was almost unanimously opposed to women practicing medicine. The great majority of the laity coincided with the members of the profession. Dr. Edwards contributed not a little to overcome this prejudice. She won the place by her merits. She was devotedly attentive to her duties, and exact and conscientious in fulfilling them. Instances are not wanting to show that sometimes she was almost morbidly conscientious in her endeavors to ascertain, both by seeking counsel and consulting the works of recognized authorities, what was the proper course to follow in a given case. Her intercourse with her patients, as well as with her fellow-physicians, was marked by tact and discretion. Their secrets were zealously guarded and their interests carefully watched. She was thoughtful, kind, sympathetic, charitable, ready to excuse and slow to criticise, and so by her faithful, earnest, skilful work, she disarmed unfavorable criticism, conquered prejudice, and gathered to herself a host of loving and admiring patients and friends.

In the early part of February Dr. Edwards was suffering from what was believed to be a slight ailment, and went South in search of health and recreation. While at Clearwater, Florida, the disease assumed a most serious aspect, and she died on the 29th of March, 1896.

CHARLES F. J. LEHLBACH, M. D.

Dr. Charles F. J. Lehlbach was born in Neunstellin, Baden, Germany, March 16th, 1835. At the age of fourteen his father, who was compelled to leave Germany for political reasons, brought him to this country. Being of studious habits, the young man diligently applied himself and received, under his father's tutelage, a classical education.

He entered upon the study of medicine in the office of the late Dr. John F. Ward, of Newark, and was graduated with honor at the College of Physicians and Surgeons of New York City, in the spring of 1856. He practiced medicine in Newark until 1859, when he became assistant editor of the *Medical and Surgical Reporter*, of Philadelphia, residing in Washington, D. C.

At the outbreak of the Civil War he joined the Citizen's Guard, which was formed for the protection of the city. In the great conflict then begun he foresaw the need to his country of all her sons, and fired with patriotic zeal, he enlisted as a private in Battery C, of the First Pennsylvania Artillery, in July, 1861, afterwards becoming its surgeon. He was commissioned assistant surgeon of the Seventh New Jersey Volunteers in 1863, becoming its surgeon in 1864 and serving until the close of the war, at which time he had been promoted to the rank of Brigade Surgeon. After the close of the war, Dr. Lehlbach resumed the practice of his profession in Newark. He became a member of the staff of the German Hospital, of which his father was one of the founders, and served in that capacity until his death, which occurred on the fourteenth of August, 1895.

Dr. Lehlbach was married, in 1866, to Miss Bertha Sautermeister, of Newark. He leaves a widow and one son, the present Dr. Charles Lehlbach. At the time of his death he represented the Essex District Medical Society as a permanent delegate in the Medical Society of New Jersey. He was a member of the Board of Trustees of the Society for the Relief of Widows and Orphans of the Medical Men of New Jersey, also a member of the Practitioner's Club, of Newark.

Dr. Lehlbach was a devoted lover of his profession. Possessing a comprehensive view of its honor and dignity and an impatient contempt for all those who would in any way prostitute its good name for personal advancement, he was not slow to denounce quackery in any form, wherever it appeared. He was generous in his hospitality and steadfast in his friendship. He hated shams of every kind and never missed an opportunity to unmask the hypocritical pretensions of those who would rise to professional preferment by unethical means. His contributions to medical literature were numerous, his most important paper being "Carbolic Acid: Its Action and Uses." This paper was read before the Newark Medical Association, in May, 1869, and published in the Transactions of the Medical Society of New Jersey, of the same year. Although antisepsis in surgery had been inaugurated by Lister and the value of carbolic acid had been demonstrated, Dr. Lehlbach's paper was far in advance of his time, and much credit is due him for bringing the attention of the profession to the varied therapeutic uses of this important substance. Who among us could have more ably summarized our present knowledge of rheumatism than he, in opening the discussion before the Medical Society of New Jersey in 1888, upon the question, "What treatment will most effectually and promptly curtail the course of acute rheumatism?"

Dr. Lehlbach was polemical to a degree. He thought for himself, and whatever views he entertained upon any given subject he was ever ready to defend with zeal and a keen logic. If he were at times dogmatic, his dogmatism was based on a thorough examination of the subject. His address, upon retiring from the Presidency of the Essex District Medical Society in 1888, on "State Protection against Quackery," was a masterful one, clearly setting forth his views upon this important subject; views which he held without material change until the time of his death. "Diet and Therapy in Typhoid Fever," read before the Practitioner's Club, of Newark, in 1891, and "The True Pathology of Sudden Death in Acute Pneumonia," read before the Medical Society of New Jersey in 1892, are among his other papers worthy of notice.

In his private practice, Dr. Lehlbach acquired a reputation for sound judgment and devotion to his patients' welfare. Though somewhat brusque in manner, he did not fail to win the esteem and affection of those who consulted him, and in that great field of labor which all

physicians cultivate to a greater or less degree, where services are rendered but fees are not collected, he was careful not to let his left hand know what his right hand did. Alas, when we consider his clear perception of professional honor, his high grade of mental qualities and his noble aspirations for the elevation of his race, life, for him, was all too short. Patriot, physician and friend, we shall cherish his memory as of one whom it was an honor to have known.

LUTHER F. HALSEY, M. D.

BY CHAS. A. HERITAGE, M. D., GLASSBORO, N. J.

Dr. Halsey was a worthy descendant of that sturdy Welsh stock that came so honorably to the fore-front in the founding, building and defense of Eastern Pennsylvania and the nation. His grandfather, Luther Halsey, a native of New York State, who rode at Washington's bridle rein in the Revolution, and at the battle of Monmouth was his Adjutant-General, had four sons—Luther, Job, John and Abraham, all ministers of the Presbyterian and Dutch Reformed churches, and all prominent in educational movements. Luther and Job were long connected with the Theological Seminary, at Princeton College. Abraham, a strong man physically, mentally and morally, was for many years the pastor of the Dutch Reformed Church of Churchville, Bucks County, Pa., where his son, the subject of the present sketch, was born.

Luther F. Halsey, the second son of the Rev. A. O. Halsey, was born in Churchville, Bucks County, Pa., October 28. 1833. After his academic preparation, young Halsey entered the Jefferson Medical College, Philadelphia, as a student of the great surgeon, the late Prof. Joseph Pancoast, of Philadelphia, Pa. Graduating from the Jefferson Medical College in 1854, in the same class with Drs. J. M. DaCosta, John H. Brinton and others since of world-wide fame in their profession. Dr. Halsey then went to Paris and became the office student of the great French surgeon, Velpeau; served as surgeon in the French navy in the Crimean War, and was present at the bombardment of Sebastapool. After visiting the great medical colleges and hospitals of Great Britain, he returned to the United States and, at the solicitation of friends, settled in Swedesboro, January, 1856. In 1857, he married Miss Katherine G. Murphy, who, with their two sons, Dr.

Luther M. Halsey, of Williamstown, N. J., and Dr. Joseph G. Halsey, dental surgeon at Swedesboro, survives him; and with the exception of three and one-half years of the Civil War, practiced his profession in that town continuously for thirty-nine years.

On the breaking out of the War of the Rebellion, he enlisted as assistant surgeon in the Seventh New Jersey Volunteers, but was soon transferred as assistant surgeon in charge of the Second New Jersey Volunteers. On December 15, 1862, was appointed surgeon in the One Hundred and Twentieth New York Infantry. This position he filled until March 9, 1863, when he was again transferred as surgeon to the Second New Jersey Volunteers. He served as one of the chief operators of the Sixth Army Corps until his regiment went home upon the expiration of term of service, May 31, 1864, when he resigned and passed an examination before an Army Board and entered the Volunteer Corps of Surgeons, being commissioned by the President and holding no regimental connection whatever. He had charge of the First Division, Sixth Army Corps, in the field, and was then ordered in the field until June 15, when he was ordered to City Point to organize a Depot Field Hospital for the Sixth Army Corps, After this was completed he organized a Depot Field Hospital at City Point for the Fifth Army Corps, and was afterwards placed as surgeon in charge of the Artillery Brigade of the Sixth Army Corps, serving in this position until June 29, 1865, the close of the war, he was honorably discharged, with the rank of Brevet Lieutenant-Colonel, having served most of the time on the operating staff of the Sixth Corps, Army of the Potomac, being in all its battles and enjoying the personal friendship of many of the most prominent Union Generals.

The war over, he returned to his home and medical practice at Swedesboro, faithfully discharging his duties as physician and citizen until his sudden death from heart disease while prescribing for a patient on Sunday evening, July 7, 1895. His chief forte was surgery. Many people in the section in which he lived can bear testimony to his skill in this line. He had wonderful success in saving portions of hands or feet, as he claimed that ever so little was better than none, and was a great advocate of conservative surgery. He was a very successful obstetrician, having attended about five thousand women during the years of his practice and losing very few cases. For the last twenty-five years he was a strong advocate of perfect cleanliness in the lying-in room, claiming that an unclean condition was the

cause of puerperal fever, thus taking a step in advance of the times and what is now accepted as an absolute necessity in obstetrics—perfect antisepsis. He was a member of the New Jersey Society of the Cincinnati, charter member of the Swedesboro Lodge of Masons, also of the Chapter and Commandery, and a member and vestryman of the Trinity Episcopal Church, in Swedesboro, N. J., for a great many years. Equipped as he was by nature, training and social position, had Dr. Halsey been ambitious, a brilliant metropolitan career was open to him, but of ambition he had none, except the purpose, in his kind and unobtrusive way, to faithfully serve his fellows in the arduous work of a medical country practitioner, a position requiring more self-reliance and a more resourceful nature, and a more varied equipment than that of the more showy but sometimes less worthy city medical specialist. How well he discharged his duties as man and physician was testified to by the great concourse of citizens, including a large number of his medical brethren who had for years enjoyed his friendship, assembled at his funeral to pay their loving tribute of respect to his useful life.

CHARLES H. DUNHAM, M. D.

BY T. H. MAC KIENZIE, M. D.

Charles H. Dunham, M. D., was born in Middlesex County, N. J., on March 24th, 1839. He came to Trenton in 1858, and entered the drug store of Isaac D. James, where he remained until he entered the Medical Department of the University of Pennsylvania, from which institution he graduated in 1864. Immediately after graduating, he served ten months as assistant surgeon in the army. He then returned to Trenton and engaged in the drug business with his friend, Isaac D. James. This partnership was dissolved in 1872, and he entered upon the practice of his profession, which he assiduously followed until his death.

So devoted was he to the practice of medicine, that he rarely engaged in any other pursuit. But once, only, was he persuaded to take a public office, and that was when he was elected to the office of Superintendent of Public Schools. He was elected by a large majority, clearly indicating the esteem in which he was held by his fellow-citizens. He also held the position of County Physician, which he filled with great ability.

The position which he most highly prized, and the one most congenial to his tastes, was that of being a member of the medical staff of St. Francis Hospital, of which he was an active member for eighteen years, resigning only when his health would not permit him to continue longer. While on the staff he rendered most efficient and faithful service. It was while engaged in the practice of his profession that he revealed the best side of his nature. True to every instinct of a gentleman, he, under all circumstances, conducted himself in his intercourse with his medical brethren, with fairness and courtesy.

To his friends, he was kind and generous; to his patients, a most faithful, conscientious and skillful physician, endearing himself to them as few physicians ever succeed in doing.

He died October 16, 1895, and his many noble traits of heart and mind, cause his colleagues ever to revere and cherish his memory, as well as regret and mourn his loss.

W. W. L. PHILLIPS, M. D.

BY WILLIAM ELMER, M. D.

Dr. Phillips was born February 29th, 1829, on a farm in what was at that time Hunterdon County, but which, upon the formation of Mercer County, was included in it. In 1840 he attended a private school near Princeton, his instructor being the late James S. Green, Esq. He was not able to pursue his studies with the steadfastness which his studious nature desired, for much of his time out of school hours was taken up with the numerons chores that inevitably devolve upon a farmer's boy. Notwithstanding the disadvantages under which he secured his preparatory education, he entered the sophomore class at Princeton in 1843, being then nineteen years of age. From Princeton he graduated in 1848, and at once entered Jefferson Medical College, from which he took his degree with high honors in 1851. He began to practice in Trenton immediately after his graduation. When Dr. Phillips entered upon his professional career the sick of Trenton, then a city of 8,000 inhabitants, were cared for by six physicians. At the time of his death, forty-four years later, during all of which time,

with the exception of a short interval, he remained in active practice, the population had increased to 65,000, with nearly 100 physicians to care for their physical ills.

At the breaking out of the War of the Rebellion Dr. Phillips volunteered his services in response to the call of his country in its need. For upwards of four years he remained in the army, first as Surgeon of the First New Jersey Cavalry, and subsequently as Surgeon-in-Chief of Sheridan's Cavalry Division. He served with high credit, and while his deeds of valor were not amid the clash of arms and the roar of cannon, the call of duty ever found him ready and faithful beside the wounded and suffering, many of whom still live in grateful remembrance of the ministrations of his skill and knowledge. At the close of the war Dr. Phillips returned to Trenton and resumed his practice, which soon became large. In 1870 the effects of the exposure and work to which his army-life had subjected him, made their impression even upon his almost gigantic physique. His health gave way, and for a year he was unable to attend to the duties of his profession. Upon the gradual restoration of health, however, he resumed the work of which he was so fond, and in a short time had built up for himself a very large practice among the most influential families of the city.

Dr. Phillips, from the first, went about his work with that zest and spirit born of a love of his calling, and to this is largely due the marked success which was his. A careful student and a great reader, his success never deceived him or led him to think that he had no more to learn, for up to the time of his death he was continually adding to his store of knowledge. His library, perhaps the largest private collection of medical works in the State, was selected with care, and ever with the thought that the physician to be useful must acquaint himself with the steps which medical science is constantly taking into new and broader fields.

In his manner Dr. Phillips was brusque, and to those who did not know him well, at times seemed needlessly rough, but this very characteristic tended to instill in the hearts of those to whom he ministered, a confidence and trust so essential to a physician's success. To those who knew him he was the very soul of gentleness, and his seeming roughness was only an awkward covering for a firmness and decision from which no appeal could be taken, and which is as necessary a characteristic in the physician as is confidence on the part of the patient.

He was a member of the Mercer County Medical Society, and at various times occupied official positions in it. He was Treasurer of the New Jersey State Medical Society for many consecutive years. His eminent fitness in his chosen profession was recognized by his appointment as Pension Examiner during the administrations of Presidents Grant, Hayes, Garfield, Arthur and Harrison, and by the selection of him as official examiner for many of the strongest life insurance companies.

Nor was it alone in the practice of medicine that Dr. Phillips held the esteem and confidence of those who knew him. For nine consecutive years he was sent to Common Council as Republican representative of the Second Ward. Twice he was unanimously selected as President of that body, and at the expiration of his last term he positively declined re-election, although strongly urged by his constituents. His councilmanic incumbency was mainly devoted to the sanitary interests of the city, and largely to his careful study and untiring efforts is Trenton's now admirable system of sewerage and drainage due. Dr. Phillips was also a member of the Board of Trade of Trenton and President thereof. For eighteen years he served as surgeon for the Pennsylvania Railroad, holding the position until his removal from Trenton necessitated his relinquishing it. For many years he was physician to the New Jersey State Prison, and by Governor Ludlow he was appointed a trustee of the School for Deaf Mutes, at Trenton.

In his public life, as well as in the private practice of his profession, the sound judgment and equitable dealing which characterized his actions found for him the confidence and esteem of even his political adversaries. He was public-spirited to a degree and ever keenly appreciative of whatever was to the best interests of the community. In his later years much of his time and attention were given to the organization of a hospital in Trenton, and upon the completion of Mercer Hospital, which owes to him a fair measure of the credit of its existence, he felt that the consummation of a project dear to his heart for many years had at last been reached.

On February 1st, 1896, Dr. Phillips left Trenton to assume the duties of surgeon at the Southern branch of the National Home for Disabled Veteran Soldiers, at Hampton, Virginia. In his work in connection with the organization of Mercer Hospital, Dr. Phillips had made a careful study of the most modern and best approved ideas in

hospital practice, and these he put into operation in the hospital at the Soldiers' Home, with the result that in the thirteen months of his incumbency as head of that institution, it had been wonderfully improved and its efficiency very materially augmented. On April 10, 1896, Dr. Phillips was taken sick; erysipelas set in, and after an illness of only a week, he died April 17.

Honest, upright and conscientious in all his dealings, a power in the knowledge and skill of medicines and surgery, kindly and sympathetic in his ministrations to the sick and suffering, Dr. Phillips was a credit to the profession in which he deservedly attained so exalted a position.

WILLIAM ALEXANDER BETTS, M. D.

BY W. B. WARNER, M. D.

Dr. William Alexander Betts died at Red Bank, Monmouth County, N. J., August 4th, 1895, aged sixty-one years, ten months and three days.

He was the son of William R. S. Betts, a Presbyterian clergyman of considerable ability and reputation, and was born at Phelps, Ontario County, New York, October 1st, 1833.

His early life was spent in a quiet and studious atmosphere, and under the guidance of his father and a private tutor, he gained a fair classical education. He commenced the study of medicine under the preceptorship of his half-brother, Dr. Robert R. Conover, of Red Bank, and graduated from the College of Physicians and Surgeons, of New York City, in 1861. He immediately entered upon the practice of medicine in Red Bank, where he remained until his death.

He was a conscientious, hard-working practitioner, and by his professional attainments and his exceptionally kind and genial nature, gained the confidence of the community to a remarkable extent. This confidence was notably manifested in the last few months of his life, during which time, although weakened by suffering, and, therefore, unable to bestow the proper amount of attention upon his patients, yet they clung to him with fond attachment until the valley of the shadow of death was actually beneath his feet. He never married.

He was thirty four years in practice, and died from the remote effects of a chronic valvular disease of the heart, and was buried at Fairview, Monmouth County, N. J.

LEVI DE WITT MILLER, M. D.

BY SIDNEY B. STRALEY, M. D.

Levi De Witt Miller, son of Peter Miller, was born at Harmony, Warren County, N. J., February 15th, 1836, and died at Newton, Sussex County, July 21st, 1895. His early education was obtained in the public school and at the Belvidere Classical Academy. In 1852, he began the study of medicine at Andover, N. J., with his brother, the late Dr. John Miller, and in 1855, graduated from the College of Physicians and Surgeons, New York City.

He immediately began the practice of medicine at Lafayette, N. J., identifying himself with the Sussex County Medical Society and the New Jersey State Medical Society. He continued in Lafayette until 1862, when he was appointed assistant surgeon to the First Regiment, New Jersey Volunteers, and served it during the war, being the only surgeon for two years in the regiment. After the war, he located in New York City, where he carried on a drug store in connection with the practice of medicine for three years, when he returned to Sussex County, and locating at Newton, continued in active practice till his death in 1895.

September 30, 1858, he married Mary E., daughter of Wesley Cummins, of Lafayette, who, with his son, Frederick Sherman, survive him—a son, Sayre Wesley, having died in his youth. In his domestic life he was kind and indulgent, always striving to brighten and cheer the lives of his dear ones—even at the last making light of his illness, that those he loved might not suffer in anticipation.

Dr. Miller was a physician of the Dr. Maclure type; one whose kindly nature made him loved by his associates and his patients, and whose only error was in too much self-sacrifice. While keenly alive to the humorous side of life, he was ever ready with pity and sympathy for those deserving it. He had a love for nature and was extremely fond of music, and found much enjoyment from the magic and charm of musical renditions, while his skillful performance on several instruments was a source of pleasure to his friends.

He had been all his life a careful student and a close observer, and many skillful operations bear evidence of his success in surgery, while hosts of patients could testify to his skill in medicine. In fact, few physicians command so large a clientage as did Dr. Miller, and although a man of few words, his patients relied implicitly on what he told them, and had all faith in his judgment.

In his professional life he was courteous and gentlemanly to his confreres, ready to uphold the right, and especially friendly and helpful to the younger members of the profession who came in contact with him, giving them aid and counsel which was greatly appreciated. A strict adherent to the code, he was universally respected by his professional brethren, as evidenced by his election to the office of President of the Sussex County Medical Society in 1859, and again in 1869, and to the office of Secretary of the same society, continuously since 1876. A further evidence of their esteem, was the large attendance of medical men at his burial service, the largest gathering of physicians at a similar occurrence ever known to the writer, in a community of the same size.

It was the writer's privilege to meet Dr. Miller professionally, socially, and as his patient, and thus to see every side of his character. It is with pleasure that he can testify to the true worth, the generous impulses and the noble character of the physician and friend.

A thorough student, not only of medicine, but on all the live topics of the day; always conscientious to his duties, both to patients and the profession; self-sacrificing to a fault, it is no wonder that the profession, as well as the community, felt a personal loss in the death of Dr. Miller.

JOB SYMMES CRANE, M. D.

BY W. A. M. MACK, M. D.

Dr. Crane was born April 23, 1825, in the old homestead on Elizabeth Avenue, Elizabeth. His parents were Job and Mary B. Crane, both natives of Elizabeth, and he came from a distinguished and honorable line of ancestors.

Dr. Crane's early education was obtained at the classical school of James G. Nutman, and when he had reached the age of fifteen he entered Princeton College, from which institution he graduated in 1843. After leaving college he taught school for a short time at the

S. E. & S. G. Woodbridge school at Perth Amboy. He decided there to adopt the medical profession and entered, as a student, the College of Physicians and Surgeons, in New York. In the year 1849 he graduated and received his diploma. He entered into practice with his first partner, Dr. George R. Chetwood. He possessed eminent natural qualifications for attaining success in his profession, and his acquired knowledge and practical skill were already great. Hence his progress toward success was rapid, and he speedily attained a large and lucrative practice. He rose rapidly to a high and universally acknowledged rank and enjoyed the honorable distinction of being one of the leaders of the profession in this section.

He always practiced in Elizabeth. For five years he was associated with Dr. Chetwood, and then formed a partnership with the late Dr. James S. Green. Later, and for a number of years, his professional associate was the late Dr. Robert Westcott. His last partnership, formed in 1887, was with Dr. George H. Bridgman, and continued until Dr. Crane practically retired, as the result of an attack of partial paralysis. Dr. Crane was held in the very highest regard by all of his fellow-citizens. He possessed social qualities that made him popular and a welcome guest in all homes. He was kind and gentle in disposition, benevolent, and ever ready to respond to a call, and no sacrifice was too great to deter him from an act of duty. Devoted to his profession, he preferred not to be active in public affairs, but yielded to the desire of his fellow-citizens and was elected to the city council, serving in an important period of the city's history when men of his sterling character were especially sought, and the services he rendered were in keeping with his reputation as a wise cousellor, a man of good judgement and high integrity; once a member of the Board of Freeholders, and also served the city as a commissioner for public improvements at various times.

He was an executor for several estates, and it was one of the evidences of the estimation of his integrity that he was sought for and consulted in matters involving financial responsibilities. He was President of the Union County Savings Bank and one of the oldest directors of the National State Bank. He was always interested in the public charities and a contributor to them in many ways. It was almost entirely due to him that the Home for Aged Women was established, nearly the whole sum of money required for the purpose having been given at his solicitation. He married, March 8, 1854,

Helen B. Watkins, a lady of Albany, who survives him. He died March 26, 1896, and leaves three daughters, one the wife of Dr. E. B. Grier, and a son, De Witt Crane, of Newport News, Va. Dr. Crane is also survived by a sister, Mrs. Mary Cory, widow of Rev. Benjamin Cory. Dr. Crane was a member of the Westminster Presbyterian Church.

DAVID M. MILLER, M. D.

BY ALONZO PETTIT, M. D.

Dr. David M. Miller was born in Newark, N. J., May 21, 1858, and died December 3, 1895, his father being Lebbeus B. Miller, the present superintendent of the Singer Sewing Machine factory, in Elizabeth. His early education was in the Hasbrouck Institute, in Jersey City, the Betts Military Academy, at Stanford, Conn., and the Pingry School, of Elizabeth, where he prepared for college. From this latter institution he entered Princeton College, where he pursued a three year's course.

Having chosen the practice of medicine for his future profession, he became a student in the College of Physicians and Surgeons, in New York, graduating with honor in 1883. He then filled the position of resident physician in the Elizabeth General Hospital, until December 31st of that year, having been then appointed assistant house physician and surgeon at the Colored Home and Hospital in New York, where he served for one year—the last six months as house surgeon. December 1, 1884, Dr. Miller returned to Elizabeth, and was appointed upon the dispensary staff of the hospital, holding this office until 1886, when he became a visiting physician of the same institution. Two years later he was appointed a visiting surgeon of the hospital, which position he occupied until the day of his death.

Since 1888 he had been the attending physician of the Elizabeth Orphan Asylum. He had also filled the offices of City Physician, Coroner of Union County, and Visiting Physician at the County Jail. He was a member of the District Medical Society of the County of Union, and of the Clinical Society of the Elizabeth General Hospital and Dispensary. During these eleven years he was successful in establishing a large practice, and kept in line with the front rank of the profession in knowledge of the modern improvements in medicine

and surgery. He was also, in quite a rare degree, a mechanical genius, so that his opinion and advice were often of great value, especially to his colleagues upon the staff of the hospital.

Personally he was a man of noble character, with a warm heart and broad views in his various relations in life. Of rather a modest and retiring manner, he always had the courage of his convictions, and never wavered in his loyalty to the right. It is worthy of mention that he was exceedingly fond of music, and was quite an expert performer on several instruments—the flute being his favorite.

Dr. Miller was married September 17, 1890, to Miss Julia Carmichael. He is survived by her and one daughter, now four years of age.

THOMAS L. HOUGH, M. D.

BY ALONZO PETTIT, M. D.

Dr. Thomas L. Hough entered into his rest on the 12th day of June, 1896, in the sixty-eighth year of his age. He was born a descendant of the Puritans in 1828, in Doylestown, Pa.

In his youth he entered the Lewisburg University, intending to study for the ministry. While pursuing his course in theology, his eyesight so failed him that he was obliged to abandon his studies. The trouble with his eyes led him to take an interest in the study of medicine, and when recovered, he entered the Jefferson Medical College, graduating with high honors in 1854. He followed his profession for a brief period in his native State, and practiced also at Frenchtown and Somerville, in this State. In 1857 he came to Elizabeth and entered into practice. Later he went to Staten Island and remained there two years, when he returned to this city and continued in practice up to within a few months of his decease.

In 1858, Dr. Hough married Amelia F. Wieand, of Emaus, Lehigh County, Pa., who survives him. They had four children. Two sons died in infancy and one daughter, Mrs. John D. Eldridge, died about three years ago. The surviving daughter is the wife of Dr. William A. M. Mack, of Elizabeth.

Dr. Hough was known and loved as a true Christian gentleman and physician, active in the interests of the church, being a constituent member of the Memorial Baptist Church and of the present East

Baptist Church, of Elizabeth. The children loved him. Dr. Hough was a public spirited man and a valuable citizen, ready for every good word and work. He was a man of fine personal appearance, genial, gentle and sympathetic. He was a constituent member of the District Medical Society of the County of Union, a skillful practitioner and highly esteemed by his professional brethren. His remains were deposited in the Evergreen Cemetery, at Elizabeth, a large concourse of loving friends and grateful patients coming together to pay their respects to one who had served them so long and so well.

JOHN JOSEPH DALY, M. D.

BY T. Y. SUTPHEN, M. D.

John Joseph Daly, M. D., was born at Rahway, N. J., May 26, 1852. His parents were John and Catharine Royston Daly. He received his early education at the public schools of his native town, and when thirteen years old, entered the office of the late Dr. Samuel Abernethy. Continuing his studies, he entered the Medical Department of the University of New York in 1870, and graduated from that institution, with honors, in the class of 1873. At graduation, he was taken into partnership by Dr. Abernethy, and remained with him until the death of the latter gentleman, in 1874.

Dr. Daly immediately entered upon a large practice, retaining it until his death. On account of his rare skill and good judgment, he became a prominent consultant for his fellow-practitioners. He did a large amount of surgical work, was a skillful operator and a faithful attendant. It had been Dr. Daly's misfortune to be quite deaf from childhood, but this, instead of being a detriment to him, appeared to be rather a benefit, inasmuch as it served to make him a most careful and attentive listener. Those who remember him as a fellow-student can never forget his close attention to lectures while sitting in the front row of seats, every word being carefully penned in his notebook.

He was a well-read man, and kept in touch with all that was advanced in his profession. Dr. Daly was a member of the New York Academy of Medicine, the Union County Medical Society, the State Medical Society, and was an early member of the Practitioners' Club

of Newark. Several years before his death he was appointed surgeon to the Pennsylvania Railroad; was Pension Examiner during the administration of President Harrison, and a member of the State Reformatory Commission. He was also prominent in the charitable and social associations of Rahway, and President of the greater number of them. Endearing himself to his neighbors, and having at heart the welfare of his city, he was urged to accept political office, and was elected Mayor of Rahway in 1885 and re-elected in 1886 and 1887, when the term of office was one year; again in 1893 and 1895, when the term had been made two years, holding this office at the time of his death.

Dr. Daly dearly loved his old preceptor and partner, Dr. Abernethy, and more than once in later years pointed to the spot where the remains of that gentleman lay, and said that when he died he wished to be buried by the side of that grave. Dr. Daly died April 14, 1896, leaving three sisters; his body being placed, as he had requested, by that of Dr. Abernethy. At his funeral the entire community seemed to gather to do him homage. He had lived surrounded by an unusual number of loving friends; died in the apparent meridian of his usefulness, and left behind the memory of a worthy life.

REPORTS OF DISTRICT SOCIETIES.

BURLINGTON COUNTY.

To the Chairman of the Standing Committee, &c.:

During the past year Burlington County has maintained its usual healthfulness, and there has been no general epidemic to report, except a widespread visitation of measles. Most of the reports represent it as mild in type, but at Moorestown one case was intensely malignant, the child dying on the first day of the eruption, with evidence of profound disorganization of the blood, vomiting and purging altered blood, and with frequent epistaxis consisting of a thin black fluid. Death occurred in coma, with occasional convulsions. Another case of measles proved fatal from an uncontrolable dysentery, the movements averaging one hundred daily for several days.

Burlington, Bordentown and Mount Holly report a number of cases of diphtheria, but there have been very few cases in other parts of the county.

Dr. W. E. Hall reports two cases of small-pox at Burlington; one a malignant case in an unvaccinated adult, the other in the same family, a vaccinated child. Both recovered, but the mild course of the disease in the patient protected by vaccination, contrasted strongly with the severe attack in the unprotected man, and furnished renewed proof of the efficacy of vaccination.

Dr. Shipps reports that whooping-cough and chicken-pox have been very prevalent at Bordentown.

As to the use of the newer remedies, no one has sent any report of the employment of nuclein or thyroid extract. In the treatment of diphtheria, antitoxin has been used by at least fifteen physicians in the county, and though not successful in every case, it has proved decidedly beneficial. However, inasmuch as the value of this remedy cannot yet be said to be entirely settled, but is still *sub-judice*, it is important to obtain as full statistics as possible of the cases in which it has been used, in order to assist the profession in forming its final judgment. I have endeavored to collect complete records of all the cases in which it has been used in this county up to date, and have summed up the results in the accompanying table, which I believe comprises every case in the county. In estimating its value it is important not merely to find out how many times it has been used and how many died, but to investigate all the circumstances surrounding the case—its previous health, its severity, the promptness with which the remedy was used, etc.—before deciding whether the antitoxin influenced the results.

Among the 68 cases in the table there were 8 deaths; 2 of these, however, occurred within six hours of the injection of antitoxin, which was not used till the patient was moribund, and too late to produce any effect. It is not fair, therefore, to include these two cases, and in the subsequent statistics I have omitted them. Excluding these, the mortality was 6 in 66 cases, or about 9%. This low percentage is all the more favorable when it is considered that many of those using the antitoxin had only used it in their severe cases, and that this represents, not the total percentage of deaths in their practice, but the percentage in their most serious attacks. Of the 26 cases in which the first injection was given within twenty-four hours from the appearance of the first symptons, 1 died—

$3\frac{8}{10}$%. Of the 19 cases injected on the second day, 2 died —$10\frac{1}{2}$%. Of the 9 cases injected on the third day, 1 died —$11\frac{1}{2}$%. Of the 11 cases injected on the fourth day or later, 2 died—19%. This progressive increase of the percentage of deaths with each delay of a day in using the antitoxin, serves to emphasize the importance of using it early and before the vital resistance of the patient has been weakened by the toxin of the Klebs–Lœffler bacillus.

Although in this group of cases cultures were resorted to in but two instances, to verify the clinical diagnosis, I believe there is no ground for doubting that all these cases were true diphtheria. In only 15 did the membrane involve the tonsils alone, and most of these occurred in families where there were other cases of undoubted diphtheria. In 13 cases the tonsils and pharynx were involved, and in 38 the nose or larynx, or both, in addition to the tonsils and pharynx. I wish to call especial attention to the large percentage of recoveries in the cases involving the larynx. Out of 24 cases, 21 recovered—over 85%. As this is a class of cases in which the mortality is usually very high, it is an extremely favorable showing for the antitoxin. An analysis of the causes of death in the 6 cases is interesting. Nos. 28, 48 and 60 died of laryngeal stenosis, and, as shown above, are a very small proportion of the cases in which the larynx was involved. No. 9 died of septicæmia. In it the patient was a vigorous adult of twenty-five, the remedy was used on the third day of the disease and repeated on the fourth, but had no apparent effect. This case would seem to be one in which the antitoxin had every chance, but failed. No. 54 was apparently moribund when first injected, on the fourth day of the disease; improvement was noted in about twelve hours, and the injection repeated. A third and a fourth injection were given on the two fol-

lowing days, and were followed by marvellous improvement; the membrane disappeared entirely, and in ten days the patient was entirely convalescent, when on suddenly turning over in bed he died of paralysis of the heart. Case 57 was a similar one, but not quite so severe; was injected on the fifth day, and again on the sixth; the membrane disappeared, but a similar paralysis of the heart occurred ten days later. Bearing in mind the experimental proof that in guinea-pigs the antitoxin must be used inside of three days in order to antagonize the destructive action of the diphtheria toxine on the cells, one cannot help believing that had it been possible in these cases to use the remedy sooner, the sudden cardiac paralysis might have been avoided, especially as the immediate effects were so beneficial.

As to the kinds of antitoxin used, the number of cases in which some of them were employed was too small to draw any conclusions as to comparative efficiency. I simply give the figures:

Gibier's (Pasteur Institute),	used in		9	cases,	1	death
Behring's,	"	"	15	"	1	"
Mulford's,	"	"	40	"	4	"
Aaronson's,	"	"	2	"	0	"

Under each of these preparations, recoveries followed in cases apparently hopeless. Only five of the cases which recovered were followed by paralysis, which was slight. The only disagreeable symptom which arose from the use of antitoxin was urticaria in one case. Almost all the gentlemen who have kindly furnished me with reports of their cases, have expressed themselves as thoroughly pleased with its action, believing it to be a most valuable remedy, and it has interested me to observe that those who have had the largest experience with it are the most enthusiastic in its praise.

Antitoxin Statistics.

by Joseph Stokes, M. D., of Moorestown, N. J.

mber.	x.	e.	ndition before tack.	as a Culture made?	erval between first mptoms and first jection (in days).	mber of Injections.	Extent of Membrane. nsils.	arnyx.	ose.	rynx.	eparation of ntitoxin used.	quelæ.	esult.	REPORTER.
47	M.	4	"	"	5	1	"	Yes	Yes	Yes	"	Slight strabismuth	"	Dr. E. F. Rink, Burlington, N. J.
48	M.	4	Fair	"	2	1	"	"	"	"	"	None	D.	" " " "
49	F.	5	Good	"	1	1	"	"	No	No	"	"	R.	" " " "
50	M.	8	"	"	1	1	"	"	"	Yes	"	"	"	" " " "
51	F.	7	"	"	2	1	"	"	"	"	Aaronson's	"	"	Dr. Joseph Stokes, Moorest'n, N.J.
52	F.	45	"	"	1	1	"	No	"	No	"	"	"	" " " "
53	F.	6	"	"	1	1	"	Yes	"	"	Mulford's	"	"	" " " "
54	M.	4½	"	"	4	4	"	"	Yes	"	"	"	D(*b*)	Dr. Alex. Marcy, Riverton, N. J.
55	F.	28	"	"	1	1	"	No	No	"	"	"	R.	" " " "
56	F.	5	"	"	2	1	"	Yes	Yes	"	"	"	"	" " " "
57	M.	2	"	"	5	2	"	"	"	"	"	"	D(*c*)	Dr. Louis L. Sharp, Palmyra, N. J.
58	M.	4½	"	"	1	1	"	No	No	"	"	"	R.	" " " "
59	M.	35	"	"	1	1	"	"	"	"	"	"	"	" " " "
60	M.	9	Fair	"	1	2	"	Yes	Yes	Yes	Behring's	"	D.	Dr. E. Hollinshead, Pemb'rt'n, N.J.
61	F.	3	Good	"	1	2	"	"	No	"	"	"	R.	Dr. J. Reeve, Medford, N. J.
62	F.	5	"	"	½	1	"	No	"	No	"	"	"	" " " "
63	F.	7	Fair	"	½	1	"	"	"	"	"	"	"	" " " "
64	M.	9	Good	"	½	1	"	"	"	"	"	"	"	" " " "
65	M.	10	Fair	"	3	2	"	Yes	Yes	Yes	Mulford's	Paralysis of throat.	"	" " " "
66	M.	12	Good	"	2	1	"	No	No	No	Behring's	None	"	Dr. L. L. Sharp, " "
67	M.	6	"	"	2	2	"	Yes	Yes	"	"	"	"	" " " "
68	F.	25	Fair	"	3	1	"	No	"	"	"	"	"	" " " "

Notes.—(*a*). Cases 12 and 27 were moribund when first injected, and died within six hours.

(*b*). Case 54 was apparently hopeless when first injected, but was much improved and was given 10 c. c. on four successive days. Membrane disappeared and patient was in ten days convalescent, when sudden paralysis of heart occurred.

(*c*). Case 57 was similar to 54, but not so severe. Died in ten days from paralysis of heart.

In conclusion, I would say that as far as I have been able to ascertain, the opinion of the profession in Burlington County is decidedly favorable to the use of antitoxin in the treatment of diphtheria.

Dr. T. T. Price, of Tuckerton, reports that the United States Marine Hospital service at that place, of which he has been officer in charge for seventeen years, has been discontinued by the government, on account of the great falling off of the number of mariners employed in the coasting trade.

During the past year our Society has lost no members by death.

JOSEPH STOKES, *Reporter.*

MOORESTOWN, N. J., June 1, 1896.

CAMDEN COUNTY.

To the Chairman of the Standing Committee, &c.:

Your Reporter distributed eighty blanks, prepared by the Standing Committee of the State Society, and has received twenty-eight responses, which is a larger percentage of replies than have been returned in previous years.

The information gleaned in this manner indicates that the past year has been one of unusual healthfulness in Camden County, in urban and suburban districts alike. In this connection, Dr. William H. Iszard says: "I think the past year has been the healthiest in the last quarter of a century." It is true that the usual epidemic of "la grippe" prevailed during the past winter and spring, but to a much less extent than in former years, and the type has not been so severe. Notwithstanding this, the

protean characteristics of the disease were plainly evident, with pneumonia, possibly, proving the most grave complication.

Typhoid fever is met with in Camden City at all seasons of the year, but an increase in the number of cases has been reported during the past winter months; and observation teaches that this has been the usual history of this disease in that city. In the country surrounding Haddonfield, typhoid fever has been very prevalent, and in Blackwood there has been more than the usual number of cases. In Gloucester City a few cases have been met with.

Scarlatina and diphtheria have prevailed to a moderate extent only; although in certain localities, as Stockton and Berlin, an increased number of cases of the former disease were seen. Dr. Joseph E. Hurff says: "Scarlet fever broke out in the Camden County Almshouse last spring. The cases, four in number, were at once quarantined in an out-building, and the spread of the disease was checked at once. They all recovered. This is the first outbreak of any contagious disease in that institution since the terrible epidemic of typhoid fever in 1881."

While a few deaths from diphtheria are reported, yet it is evident that the cases of this disease occuring in Camden County during the last four years have generally been of a mild type.

Rubeola, pertussis and parotiditis have been epidemic in certain localities—rubeola being particularly severe in Merchantville, Berlin and Stockton; and, while the prevalence of the disease has hardly reached the dimensions of an epidemic in Camden City, yet the number of cases has been largely increased.

Malarial manifestations are reported from various parts of the county, and, particularly in Camden City, the

number of cases of illness due to this cause have been increased.

Dr. John R. Stevenson reports as follows: "The health of Haddonfield has been better than for several years. There have been no epidemics. Typhoid fever and diphtheria have been infrequent, isolated and easily controlled. But in the surrounding country the former has been quite prevalent and severe. It is believed to be due to the dry season which caused the wells, from which most country houses draw their water, to become very low. It has long been noticed in this section that a drought is followed by sickness, such as typhoid or malarial fevers or dysentery. The past year is the first dry season since deep spring water has been supplied to Haddonfield, and the great contrast between the number of typhoid fever cases in this town—three in a population of 2,800—and the adjacent country, is strong proof that the origin of the disease was in the water. Two out of three patients here followed occupations which called them daily into the country; the third one's business was in Philadelphia.

"'La grippe' has impressed its symptoms on those who contracted colds. A few cases of measles have occurred this spring. Malarial diseases were rare, although other affections have shown the impress. Pneumonia has been more frequent than usual the past six months, with a marked tendency toward the typhoid form, and a number of cases have been fatal."

To the question, "Is the therapy of antitoxin serum, nuclein solution and thyroid extract so fully established as to receive the endorsement of the profession?" a number of answers have been received.

Dr. H. Genet Taylor does "not think the results prove them applicable in all cases, and they are not fully en-

dorsed by the profession in private practice. Hospital reports of cases of diphtheria treated by antitoxin, however, are more favorable as to success in lowering the mortality."

Dr. William A. Davis says, in reply to the above question: "I think antitoxin is, but nuclein is still on trial with me."

Dr. O. B. Gross "believes not," and James M. Ridge asserts emphatically, "No, not as yet."

Alexander Marcy says: "As regards antitoxin, its use is certainly to be further encouraged."

Dr. Orange W. Braymer believes they are worthy of trial and continues, "but I do not think we can say that they are on a firm basis as yet. Other rational treatments will produce as good, if not better results. I have used antitoxin in only three cases of diphtheria, with one death. From other treatment I have had a series of nearly forty cases, with no deaths."

Further responses to the question are as follows: Dr. John R. Stevenson: "I think the antitoxin serum ought to receive the approval of the profession."

Dr. Joseph L. Nicholson: "That of antitoxin serum and thyroid extract is, I believe."

Dr. J. S. Baer: "I believe antitoxin has come to stay. Nuclein is yet *sub-judice*. In the nervous disturbance accompanying the menopause, thyroid extract has been of service, especially relieving the hot flushes."

Dr. Duncan W. Blake: "In my practice antitoxin has given splendid results in the treatment of diphtheria, and particularly in diphtheritic croup."

Dr. Henry A. M. Smith: "I think not; although my personal experience is too limited to give an opinion worthy of much consideration."

Dr. Joseph E. Hurff: "I believe strongly in the anti-

toxin therapy; would use it in all cases. It has demonstrated, beyond all question, its power to counteract and destroy the diphtheritic bacilli. It is certainly a scientific treatment."

Dr. Daniel M. Stout: "I think not."

Dr. John W. Marcy: "I have used only proto-nuclein, which has given good results."

Dr. Alexander McAlister: "Antitoxin serum has proved very successful in my practice."

Drs. Wilson G. Bailey and H. H. Sherk both say "Yes."

Dr. William R. Powell: "As the question refers to antitoxin serum, yes; as to nuclein solution and thyroid extract, not yet, in my judgment.

In response to the request for member's experience with the newer remedies, Dr. H. Genet Taylor says: "In typhoid fever cases I have used the cold tub baths, with favorable results, in hospital practice. In chronic tuberculosis I have observed marked benefit by the continued use of creosote, and believe the drug is best administered by enema."

Under this heading, Dr. Edmund L. B. Godfrey writes: "During my term of service at the Cooper Hospital, twenty-three cases of typhoid fever came under my care, nineteen of which were treated by the Brandt method externally and with antiseptic remedies internally. This combined form of treatment gives the best results, to my mind, in the treatment of the fever. Of the results of intestinal antisepsis in the treatment of typhoid fever, when fully carried out in the early stage, the profession is familiar. When the Brandt method is instituted early in the disease and persistently followed when the temperature attains a height of 102⅘, very satisfactory results may be looked for. This is generally believed to be the best measure to adopt in the treatment, by most hospital

physicians. The cold bath, as instituted by Dr. Brandt, stimulate the vessels, nerves and glands of the skin; abstracts the heat from the body; stimulates the nerve centres, which react upon the heart, lungs, brain and other organs; increases the force of the circulation and respiration, which results in the better oxygenation of the blood; clears the intellect; promotes sleep, and increase the elimination of the toxic products."

Dr. James M. Ridge: "Think acetanilid may be used with some hope of benefit in the reduction of temperature of fevers, but must be carefully watched."

Dr. William A. Davis notes three grave cases of diphtheria, in which antitoxin serum was used. All recovered.

Dr. Orange W. Braymer has also used antitoxin in three cases of diphtheria, with one death.

Dr. O. B. Gross says he has found trional a very valuable hypnotic.

Dr. Maximilian West speaks of some newer remedies and of at least one old remedy, thus: "Found sodium sozoiodolate very valuable as an antiseptic insufflation, in suppurating anginas, and agreeable to patients; tanningen, an efficient and pleasant astringent in diarrhœas where there is no ulceration; taka-diastase, a valuable aid in the digestion of the carbo-hydrates, relieving intestinal flatulence; salophen, a safe, pleasant and trustworthy remedy in acute poly-arthritis; methylene blue astonished me in curing two cases of acute gonorrhœa in ten days; sodium bicarbonate, in 30 gr. doses, in 2 oz. water, every half hour for four doses, (if needed, repeat the same in six or eight hours), will very frequently check *at once* an acute naso-pharyngeal catarrh."

Dr. S. Presley says: "I have used antitoxin in four cases. Each child had two injections, and to one of them the third injection was given. At the same time

the most energetic swabbing and spraying was kept up every half hour, only allowing the children to have four hours for sleep at night. Antitoxin may have mitigated the virulence of the diphtheritic poison, but I am not at all sure about it. I now have patients taking proto-nuclein and thyroid extract, but I can only say that I think the medicines are doing good."

Dr. William H. Pratt reports "very satisfactory results from strontium preparations."

Dr. Daniel Strock thinks stearate of zinc with acentanilid is one of the most satisfactory dusting powders for wounds, chronic or specific ulcers, that he has ever used.

Dr. John W. Marcy asserts that "betanaphtol bismuth has yielded all the results claimed for it in infantile bowel troubles, during the past summer."

Dr. Duncan W. Blake says: "Trional, sulphonal, salophen and aristol have all given entire satisfaction."

Dr. H. H. Sherk says: "Antitoxin, in one case of membranous croup, was successful; in another, no result. Creolin, I have found to be an excellent remedy in the sore throat of scarlet fever. Oxygen gas has been of immense service in pneumonia."

In the matter of improved sanitation, none of the correspondents have anything to report, with the exception of Dr. John W. Marcy, of Merchantville, who says: "The local Board of Health has recently passed an ordinance tending to make plumbers more careful in introducing plumbing and drainage into the houses of the borough."

In the city of Camden, no improvements have been effected, but it is important to note that the City Council has recently passed an ordinance, which has received the approval of the Mayor, providing for supplying the city with water from wells sunk in the vicinity of Delair, near

the banks of the Delaware River. While this water is called artesian, obtained from wells less than one hundred feet deep in some instances, it is evident that it is Delaware River water naturally filtered. That this supply will be an improvement upon that heretofore furnished to Camden, there can be doubt, as it is of excellent taste, perfectly clear and soft.

A few reports of unusual and interesting medical or surgical cases have been received.

Dr. Orange W. Braymer reports sloughing of a portion of the upper lip and gum, with some necrosis of the superior maxilla, following the use of local anæsthesia by a dentist.

Dr. S. Presley gives notes of a case of cirrhosis of the liver, revealed by autopsy, in an infant at the age of eight months. No irregularity or jaundice was discovered before the child was three weeks old. The last symptom before death was dropsy. The child was tapped three times, two quarts and a half-pint of fluid being discharged in the aggregate.

Dr. John R. Stevenson writes as follows: "During the past year I have seen three cases of abscess of the lung after pneumonia. In two of these the inflammation of the lung tissue was so slight as to escape diagnosis. The third one was the result of severe inflammation of the two lower lobes of the right lung, complicated by the passage of a gall-stone during the second stage. All recovered after a protracted convalescence."

Dr. Duncan W. Blake reports the following case of interest: "Imperforate hymen. Mrs. S., aged 16 years, nine months married; found her suffering severe pains, characteristic of labor; upon examination found a soft tumor bulging from vagina, feeling like an unruptured membrane in a partially dilated os, which proved to be men-

strual fluid pushing against a complete imperforate hymen. Operated in the usual way with trocar, and evacuated about three pints of menstrual fluid. Patient made an uneventful recovery."

D. H. H. Sherk reports "a case of pneumonia, following 'la grippe,' which was complicated by hiccough, the latter lasting eight days, ending in death."

Dr. Daniel Strock reports a similar case of hiccough, persisting continuously eleven days, and even during sleep, complicating pneumonia, occurring in a gentleman 68 years old. Recovery was complete.

In this connection Dr. Paul M. Mecray says: "In twenty-one cases of mumps, occurring at the Children's Home, Camden, N. J., I was able to demonstrate the presence of, and cultivate the coccus described by Laveran, both in the blood and in the secretion from the parotid. This was obtained by passing sterile worm gut into Steno's duct."

Dr. William R. Powell used antitoxin in one case of diphtheria with satisfactory results. The diagnosis was confirmed by the Laboratory of Hygiene, at Princeton, N. J.

By Dr. D. Benjamin: One splenectomy; death. One double salphingo oöpherectomy; recovery.

By Dr. O. B. Gross: Five amputations of leg; recovery. Trephining for compound depressed fracture of skull; recovery. Two herniotomies, for radical cure; recovery.

By Dr. Daniel Strock: Two herniotomies, for radical cure; recovery. One amputation, arm below elbow; recovery. One amputation, leg, lower third; recovery. Amputation at knee-joint, for gangrene of leg; recovery. Amputation, thigh, upper third, for crush; died. Compound comminuted depressed fracture skull; trephined; died.

By Dr. Orange W. Braymer: Cold abscess of thigh; opened, drained; recovery. Necrosis of tibia; dead bone removed; recovery. Abdominal section for sepsis, due to sloughing fibroid of uterus; died in 52 hours. Removal of entire lower lip, for epithelioma; recovery. Removal of tubercular glands of the neck, which were adherent to the sheath of the carotid; recovery. Excision of the patella for necrosis, and curettage of the knee-joint; recovery. Operation for radical cure of hemorrhoids; 2 cases; recovery. Curettage, trachelorhaphy and perineorrhaphy, at one sitting; two cases; recovery. Amputation of forearm; recovery. Amputation of leg; recovery. Amputation at knee-joint; died seven hours after operation. This case was admitted to Cooper Hospital nine hours after injury, and a post-mortem examination showed the cause of death was an ante-mortem heart clot. Amputation of thigh, lower third; two cases; recovery.

By Dr. Joseph L. Nicholson: One internal urethrotomy. One external perineal urethrotomy. Five cases trephined, three of these having intra-cranial hemorrhage. Two amputations of forearm. One amputation thigh, for crush; died. Two amputation of leg. Three herniotomies; in two, radical cures were effected. Two oöphorectomies. Two trachelorrhaphies. One trachelorrhaphy and perineorrhaphy.

By Dr J. S. Baer: Seven laparotomies for tubal and ovarian disease, with one death. Two hysterectomies, by the vaginal route, for cancer of the cervix; one death. One supra-pubic hysterectomy for uterine fibroid. Eight operations for lacerations of the cervix; ten for perineal laceration, two complete, including sphincter muscles. Three cases of amputation of cervix; one for procidentia uteri. Twenty-one cases of dilation, with curettage.

By Dr. William H. Pratt: Removed large growth of labia majora, four inches long and three inches wide.

By. Dr. Wilson G. Bailey: One hysterectomy and oöphorectomy for fibroid uterus, adherent to bladder; death in twenty-four hours.

By Dr. William R. Powell: Two cataract extractions; four enucleations of the eye-ball. One evisceration of the globe. One iridectomy for glaucoma.

The celebration of the fiftieth anniversary of the organization of the Camden District Medical Society was held in Camden, on the afternoon and evening of February 11, 1896, a full report of which will be found elsewhere.

The following reports of cases are also appended: "A Human Monster," by Dr. Henry E. Branin. "Five Cases of Fractured Skull," by Dr. Joseph L. Nicholson. "Operation for Metritis and Pelvic Peritonitis," by Dr. J. E. Hurff. "Appendicitis," with a report of cases, by Dr. A. McAlister.

The reports of the Cooper Hospital and Camden City Dispensary have recently been issued, giving statistics of the work done at those institutions during the past year. At the Cooper Hospital, 552 patients were treated in the wards and 11,688 in the dispensary. At the Camden City Dispensary, the total number of sick receiving the benefits of the institution was 9,040.

Important changes have occurred in the staff of the Cooper Hospital during the past year. Dr. George T. Robinson, the pathologist, died in June, 1895, and Dr. Paul M. Mecray was appointed to the position. Dr. Joseph H. Wills, who has been a member of the surgical staff for a number of years, recently resigned, and Dr. Orange W. Braymer was appointed to fill the vacancy. The gynecological department has been for several years in charge of Drs. E. L. B. Godfrey and William A. Davis,

who performed the duties of the position, in addition to those devolving upon them as members of the medical staff. Finding the work becoming too great, they requested the Board of Managers to relieve them from this duty, which was was done by appointing Drs. Dowling Benjamin and Joseph S. Baer as gynecologists.

The sixth annual commencement of the New Jersey Training School for Nurses was held in Camden, on the evening of June 1, 1896, on which occasion the degree of medical and surgical nurse was conferred upon fifteen graduates. Dr. Joseph H. Wills delivered the address to the graduates.

One member of this Society has died during the past year, namely, Dr. George Taylor Robinson, of whose life a sketch is forwarded. Dr. L. Reese, a graduate of Penn Medical College and the Medico-Chirurgical College, died at his home in Stockton, N. J. He was not a member of any medical society.

DANIEL STROCK, *Reporter*.

CAMDEN, N. J.

OPERATION FOR METRITIS AND PELVIC PERITONITIS.

BY J. E. HURFF, M. D., BLACKWOOD, N. J.

On or about October 19, 1895, Mrs. W. was taken with what she supposed to be her menstrual flow. After this had continued for about ten days she became alarmed and I was called in. Pregnancy was not thought of by the patient; but as the flow continued, I suspected a miscarriage. In a few days a piece of placenta came away while using the syringe, thus confirming the suspicion. This soon all came away, and she progressed very well for several days. While feeling well she arose and went down stairs and exposed herself to a cold draft at the door. She was seized with a severe rigor, which lasted for some time. I found her with a high fever and rapid pulse. There was considerable tenderness over the womb, which was very sensitive to the touch. The fever continued and the pain and tenderness increased.

DR. BRANIN'S CASE.

DR. BRANIN'S CASE.

Diagnosis, metritis, with pelvic peritonitis. The stomach was irritable and would not retain anything. She vomited everything that was given her. There were profuse sweats with diarrhœa, associated with great tympanites of abdomen. The condition of patient was extremely unfavorable. Collapse was tided over by the hypodermic injection of strychnia, with aromatic spirits of ammonia and digitalis, internally. She lay on her back with limbs drawn up. The womb had become fixed, and a great amount of induration could be felt all around it. An abscess formed on or about November 12; fluctuation could be detected, and it was decided to operate at once.

The patient having been prepared, a celiotomy was performed. Great adhesions were found, and deep down in the pelvis an abscess was opened. The peritoneal cavity was flushed out thoroughly with boiled water, and a drain of corrosive chloride gauze inserted. Her recovery was slow but sure. The patient was finally discharged on January 9, 1896, after having been confined to her bed for four months, less ten days.

A Human Monster.

BY HENRY E. BRANNIN, M. D., BLACKWOOD, N. J.

On the morning of July 5, 1895, about 1 o'clock A. M., Mrs. B., who was at the end of her sixth pregnancy, was taken with slight labor pains, which were very irregular but gradually increased until about 6 o'clock A. M., when I was summoned to see her, but being absent for a short time, Dr. Hurff was requested to see her until my return. The Doctor found the os uteri well dilated, but the patient was entirely free from pain, in which condition she remained about an hour, when the pain gradually returned. Soon after this I returned and took charge of the case.

I found a very roomy pelvis, the os uteri well dilated, the liquor amnii evacuated, and the vertex presented at the left ileum, but had not entered the superior strait. The pains became regular and more severe, yet the head did not descend into the cavity of the pelvis. It seemed as though the pains were all confined to the circular fibres of the uterus, the longitudinal fibres being entirely free from any contraction. She remained in this condition for some time, when I

gave her stimulants and ergot, but without any apparent effect I then decided to apply the forceps, and upon using gentle traction the vertex seemed to enter fairly the superior strait, but did not descend into the cavity. Applying more force without any advancement, I removed the forceps and passed my index and middle fingers up alongside of the head and touched another vertex (the first thought that came in my mind was a case of "Siamese twins") which, as near as I could make out on account of the heads being so high, was resting between the ear and shoulder. I tried to push it up, but it was impossible to move it. I then decided to apply the forceps and with more force to see if the first head could not be brought lower down, which I did, and finally succeeded in delivering the patient of a living male monster, which I caused to be photographed for the benefit of the members of the Medical Society.

There was but one cord and one placenta. This monster had two well developed heads, two necks, four arms, two legs and two feet, well developed, and one rudimentary leg attaching itself near the centre of the sacrum, a little to the left side, 3½ inches long and terminating in a point resembling a pig-tail and tipped with a nail similar to a toe-nail, one penis, one anus. The dimensions of this monster are as follows:

Circumference of the larger head, 14¾ inches.
" " smaller " 10½ "
Length from vertex to hip-joint, larger, 11½ inches.
" " " heel, " 19 "
" " " hip-joint, smaller, 10 "
" " " heel, " 17 "
Circumference of shoulders under back arms, 17¾ inches.
" over the navel, 13 inches.
" under the arms, 17½ "
Weight, 12 pounds.

The union commenced in front on the sternum, two inches from the upper end of the bone on the larger, and one and one-half inches on the smaller. This attachment continued from the sternum on the larger side to a point on the front of the shoulder; and on the smaller, to a point a little above the shoulder along the side of the neck. The vertebræ joined at the lower dorsal and upper lumbar.

The family history of both parents is good, healthy and long-lived, excepting the maternal mother and grandmother—both died young,

DR. BRANIN'S CASE.

of phthisis. In each of the mother's preceding pregnancies she went to full term and was followed by perfectly natural labors and living children.

This monster breathed on one side five times, and on the other side four times. The breathing was alternate, showing evidently that there were two sets of lungs and two hearts. This is somewhat conjecture, as I had no opportunity of making a post-mortem examination. The mother had a good getting-up, not any unpleasant symptoms whatever, and has enjoyed excellent health ever since. During her period of utero-gestation she had fairly good health, but was unusually dull and stupid. There was less motion of the child in utero than in her preceding pregnancies; was mostly confined to the left side.

My impression is that in this case there were twin conceptions, but that the membranes which did, or ought to have enveloped each body, were impaired or imperfect in some way, so that the bodies were allowed to come in close contact with each other, and this monster was the result.

Report of Five Cases of Fractured Skull.

BY JOSEPH L. NICHOLSON, M. D., CAMDEN, N. J.

Case 1.—John Warner, æt. 22, single, colored, driver by occupation, was brought to the Cooper Hospital on the morning of July 11th, 1895, with the history of having been injured on the Pennsylvania railroad, near Palmyra. He was in a condition of stupor, with noisy respirations, and with the odor of alcohol on his breath. He would answer questions imperfectly if roused. There was no paralysis nor inequality of action of the muscles on either side. The pupils were equal. There were no external wounds. The scalp over the whole skull was bulging enormously from fluid beneath it. Though it was not possible to feel a fracture of the skull with the fingers, through this fluctuating mass, one was suspected.

The man was also becoming more and more stupid, and the scalp was bulging more and becoming very tense. This bulging extended from the forehead to the occiput. After the administration of a slight amount of chloroform to produce anæsthesia, the scalp was incised in the medium line, and a large accumulation of blood and

clots turned out. A long, transverse fracture of the skull was then found, almost one-half inch posterior to the coronal suture. It seemed to pass completely around the skull, causing the fragments to be quite movable, and reminded one of a cocoanut nearly severed around.

Another incision was made in the scalp at right angles to the first, from one temple to the other. As blood was oozing from both sides, from the fracture, it was concluded both anterior branches of the middle meningeal were ruptured. So the trephine was used on each side, 1½ inches behind, 1¼ inches above, the external angular process of the frontal bone. On the removal of each button, an extradural clot was found and removed, and the bleeding vessel easily recognized and the hemorrhage controlled by packing with iodoform gauze.

There was no hemorrhage found beneath the dura mater. The incisions in the scalp were then closed with silk sutures, except over the trephine openings. The sutures were placed here, but left untied, that the ends of the iodoform gauze might protrude for drainage and for their removal. As the patient had lost so much blood, his pulse was weak and uneven. And after his removal to the ward, hypodermoclysis was resorted to, as well as enemas of beef tea and whiskey. The oozing was very great from the drainage, and the dressing and several towels and pillow-cases were soaked with it within the first twenty-four hours. The next morning, or less than twenty-four hours after the operation, the patient was quite rational, and continued so.

In forty-eight hours, the iodoform gauze packing was removed from each side, but on account of hemorrhage, more had to be inserted on one side. It was removed safely in forty-eight hours, and the sutures tied, that had been left merely in place. His temperature ran up to 102° on the second day, which was mainly due, I think, to a cystitis that occurred from retention of urine and catheterization. The patient was out of bed and on his feet on the twelfth day. In two days more he felt so well he wanted to go home.

As his degree of intelligence was not known to us before the accident, we could not tell how much damage was done, but his friends assured us he was just the same as before the injury. It was noticed by us that his speech was drawling, and that he could not answer questions quickly. His memory seemed to be good. His friends assured us that this was his usual condition.

He was discharged on the thirty-third day, but would have gone much sooner if his friends could have been heard from. This patient would surely have died, without relief, in a few hours. He was seen by me a few weeks ago, and was in good general health.

Case 2. – John Lewis, æt. 20, colored, single, laborer. Admitted to the Cooper Hospital July 14, 1895, with the history of having jumped from a trolley-car that was going at full speed. His brother said he was dozing and became frightened by the car running over something that caused a sudden jolt and noise. When seen by me in the Receiving Ward, he was sleeping on his side. He had been vomiting blood, and blood was coming from the left ear.

There was a large fluctuating tumor beneath the scalp, above and behind the left mastoid process. When aroused, the patient was irritable and unreasonable. Suspecting fracture of the skull, and fearing the hemorrhage would occur within the skull, as soon as the tension without became great enough, a flap was turned down, exposing the tumor, which was found to be blood, and blood was oozing up over the line of the left lateral sinus. There was found a fracture coming up from the base in front of the ear, and passing around above it, and then down toward the foramen magnum. Trephining was then done over the sinus where the blood was flowing out. When the halves of the button were removed, the blood welled up in an alarming manner. But the hemorrhage was easily controlled with iodoform gauze packing. The patient was but little shocked by the operation and was soon from under the influence of the chloroform. The packing was allowed to remain for seventy-two hours. But more had to be inserted on account of the hemorrhage, and it was successfully removed at the end of forty-eight hours more. This patient was irritable and restless from the effects of the concussion, but gradually his mind cleared up, and he was discharged, cured, on the twenty-seventh day.

Case 3.—Henry C., white, aet. 14, school-boy, born in Ohio. Admitted to the Cooper Hospital, July 23, 1895, with the history of having fallen from a car upon a flat-boat, on which the former stood. The patient was very much shocked, unable to speak, though he could be aroused and then acted as though he was trying to speak but could not articulate. There was no symptom of paralysis. The pupils were widely dilated. Examination disclosed a compound depressed fracture of the left side of the skull, about 1 inch by 1½ inches below the parie-

tal eminence and a little posterior to the ear. After his reaction he was placed under the influence of chloroform and the depressed pieces of bone taken out. This could not be done until the forceps had been used freely, as the opening in the outer table was so much smaller than that of the inner. The patient was able to speak the next day, but not rationally, took his nourishment regularly, the temperature rose as high as 102⅘ and he was very delirious. The temperature and delirium soon improved, and in a few days he could use a few short words, but not connectedly. He would sometimes say one word many times in succession. The delirium lasted about fourteen days and it was necessary to restrain him to prevent him from tossing and rolling out of bed.

Ice was used on his head as well as it could be, but his extreme restlessness made it impossible for him to receive much benefit from it. Hypnotics were used freely, but it was impossible to quiet him with safe doses. After dozing a few minutes he would resume his tossing and shrieking during the day and night. As he convalesced, coherent speech and memory returned, and he was discharged cured in twenty-five days. His father tells me his disposition has changed slightly, being more mischievous and irrepressible than before the accident.

Case 4.—Edward W., white, aet. 16, school-boy. Admitted to the hospital August 19, 1895, in a condition of stupor; pupils dilated widely; no sign of paralysis of extremities. The patient had vomited freely, and constantly desired to lie on his side if disturbed. The condition of shock was not severe. A large compound depressed fracture of the skull was noticed above and to the right of the external occipital protuberance. The history was, that with another boy he attempted to steal a ride on a freight train on the West Jersey Railroad, and being detected, was pushed off the moving train by the brakeman.

The patient was anæsthetized with chloroform, a large flap made to fully expose the injury. There was a depressed comminuted fracture about 1½ inches by 2 inches, with brain substance exuding with the blood. The lambdoidal suture was separated two inches on the left and to the mastoid process on the right. The comminuted pieces of skull were removed and the bone cut away a little to the right with Ronguer forceps, to enable me to repair the rent in the dura mater. After thus exposing the opening in the dura it was found to be

almost an inch long, and on exploring I found a mass of clotted blood almost as large as a walnut. This hemorrhage had caused the brain substance to exude by pressure through the lacerated dura. The cavity left by removal of the clots was then lightly packed with iodoform gauze. The dura was stitched with catgut, leaving just enough of an opening for the removal of the gauze. The occipital bone was displaced so much from the parietals that I made an effort to replace it, but was only partially successful and was forced to nip off the sharp serrations with the cutting forceps. The flap was then closed with silkworm-gut sutures, leaving sufficient space for the withdrawal of the gauze. A small drain of strands of silkworm-gut was used at the lowest angle of the incision.

His recovery from the shock of the operation was very prompt. The following morning he could answer simple questions correctly. The second day after the operation he could do better. The third day after the operation the gauze packing was removed. On the fifth day the patient was very unhappy. On inquiry as to the cause, he stated that he was blind and could not tell day from night. His pupils were widely dilated, but contracted to light. The opthalmoscopic examination by Dr. Wm. R. Powell revealed only a congestion of the fundus. Gradually the power of discerning daylight from darkness, and later of seeing the hands, returned. About the twenty-fourth day he could read one-half in type at twelve inches. But it was also found that the patient was suffering from homonymous lateral hemianopsia. The left visual fields were darkened. The right fields were very much contracted, as seen by chart. Wernicke's symptom was absent; that is, the pupil contracted when the light was thrown on the blind side of the retina, as well as on the seeing side, thus showing the lesion was behind the occulomotor centres and was cortical. This is another cause added to those heretofore studied, with lesions of the posterior portion of the occipital lobe causing homonymous lateral hemianopsia and contracted visual field on the injured side.

Case 5.—William S., white, aet. 40, laborer, native of New Jersey. Admitted to the Cooper Hospital December 8, 1895, with the history of having fallen from a railroad bridge near Merchantville to the tracks below, a distance of about fifteen feet. He had a lacerated wound over right malar bone, a contusion of right eye, and a scalp wound on right side, of slight character. There had been loss of

consciousness for a short time after the injury. He complained of weakness and headache when admitted.

On the morning of the ninth the patient was conscious when the resident physician made his rounds, but was showing signs of paralysis on the left side, involving first the face, then the arm, and later, the leg. Owing to the illness of Dr. Gross, one of my associates on the surgical staff of the hospital, I was called to examine the patient and perform any necessary operation. At 12 o'clock the patient was in a stupor with left hemiplegia, but not anæsthetic. There was extensive hemorrhage into the cellular tissue of both orbits, and subconjunctival hemorrhage of the left globe. A diagnosis of the fracture of the bone of the skull, with intracranial hemorrhage on the right side, was made. As the paralysis began in the face and later involved the arm and leg, it was concluded the meningeal artery had been ruptured and that the hemmorrhage and clot was compressing the cortex of the brain, and must be high up. It was decided at once to trephine the patient.

At 1.40 P. M. chloroform was administered carefully and a button was removed 1½ inches posterior and 1¼ inches above the external angular process of the frontal bone. No clot was to be seen either extra- or intra-dural. But when the grooved director was passed down and backward, blood welled up the groove. The trephine opening was then enlarged toward the ear. I should mention the fact that no fracture was found until the temporal muscle had been dissected loose, when one was seen pressing downward and backward across the greater wing of the sphenoid bone and the squamous portion of the petrous bone. Apparently it did not extend to the orbit. As it could not be traced further than the base of the skull in the other direction, it cannot be said how far it went. The more the Renguer forceps were used to enlarge the opening, the greater mass of clot was discovered. At first bent forceps were used to remove the clot, but finding this very slow and ineffectual, the forefinger was used to hook it out of the interior and middle fossæ of the skull. When the clot was disturbed the hemorrhage was very severe and the bleeding point could not be discovered until nearly all the clot was removed. Then it was found that the posterior branch of the middle meningeal was ruptured well down in the fossæ.

The patient became blanched and the pulse ran up to 140 while this hemorrhage was taking place. After hypodermoclysis and an in-

jection of $\frac{1}{15}$ gr. of strychnia, the pulse came down to 120 before the close of the operation. After removing all the clot, the bleeding vessel was controlled by pressure of a small sponge on a sponge-holder, and later, iodoform gauze was packed over it. An incision was made in the large flap for the end of the gauze to protrude. The incision was then closed with silkworm-gut sutures.

After his removal to the ward, another subcutaneous injection of a pint of salt solution was made and enemas of beef-tea and whiskey were used. The time of the operation was one hour and twenty-five minutes. During the evening the patient was able to take nourishment by the mouth. The next morning after the operation he was conscious; the hemiplegia had disappeared, but there was ptosis of the right side and inability to rotate the eye-ball inward.

The gauze was removed seventy-two hours after the operation. The incision promptly healed, and the opening left for the gauze soon granulated up. The patient progressed rapidly to recovery, with only the drawback of a small abscess developing on his leg. The ptosis diminished to such a degree that the pupil was not occluded by the lid, and the internal rectus muscle had nearly recovered its power.

On the 7th of January, 1896, the patient returned to his home in good health. The ptosis and paresis of the rectus muscle was probably due to injury to the third nerve, while extracting the clot or compression by a portion of the clot not successfully removed.

Some Remarks on Appendicitis.

BY ALEXANDER MC ALISTER, M. D., CAMDEN, N. J.

It is recognized that more than 90 per cent. of all inflammatory conditions in the right iliac fossa commence in the appendix, and in a large number of these the starting point is an aggregation of probably dried fæces within the appendix; hence, the term appendicitis has replaced the various other terms applied to inflammation in that region —typhlitis, perityphlitis, paratyphlitis. As our pathological information increases, unquestionably other terms will be coined, but for the present, appendicitis is a good-working word, and suggests the origin of the trouble.

Inflammation in the right iliac fossa occurs under many forms, and much the larger portion do not fall under the care of the surgeon, being curable by medical means alone. On the other hand, a certain

number require prompt and immediate attention from the surgeon, and the question of diagnosis is one of paramount importance.

It is not very difficult to lay down rules as to what cases should be subjected to such and such treatment. but when face to face with the patient it may be safely said that with our present knowledge an accurate diagnosis is not obtainable. Much better are we now able to recognize the condition of affairs about the appendix than a very few years ago, but much still has to be done, and no doubt the observations made during life, and the conditions recognized during operations, are the factors upon which we shall have to depend for future improvement.

Increase of knowledge, based on clinical observation during the past few years, justifies the opinion that appendicitis occurs in females nearly as often as in males, and from very early childhood to middle life.

The starting point usually is the appendix, in exceptional cases only is it the cæcum, and then probably tuberculosis exists.

The inflammation appears to begin in the lining membrane of the appendix, and may be catarrhal in character without obvious cause, but a concretion is found in very many cases, and this is probably the foreign body spoken of under the name of "prune-stone, date-seed, coffee-berry," etc., which have been occasionally referred to in the medical periodicals of the day.

It is likely that a piece of fæces has entered the appendix and, remaining for a certain time, has become dried more or less by absorption of the watery constituents; or perhaps retained by a fold of mucous membrane it has become embedded and hardened by the process already mentioned. Certain it is that a foreign body has been found again and again to be present in cases of appendicitis, more often than could possibly happen by accident; hence a place in the causation of the disease is to be given to the more or less large mass of hard substance—probably fœcal—so often present. The coats of the intestine may give way gradually until the actual rupture takes place, or the thinning of the wall of the bowels may recur with successive attacks of inflammation.

It would be expected, as the intestinal wall becomes thinner, that adhesions between adjacent coils of bowel would take place, and that this does happen is testified to by the many cases of circumscribed suppuration about the appendix; but occasionally the failure of adhesions to take place permits general septic peritonitis to occur.

Just why an inflammation should take place in the appendix without the presence of the foreign body as an exciting cause, we are unable to say, but so many cases are met at post-mortem inspection, which give evidences of cured inflammation about the appendix, that the fact has to be admitted.

As the appendix is probably the relic of a large cæcum existing formerly, it would be proper to consider this part of the intestine as an organ not capable of resisting disease to the same extent as do the other portions of the bowel; hence, it would be the place of the least resistance. The formation of pus is thus to be looked upon as an intra-peritoneal—not an extra-peritoneal formation.

The point where the inflammation begins may be at the apex, or at the base of the appendix, or between the two. When it is situated at the base of the appendix, the cæcum is also found to be inflamed, but as soon as the pus forms it is not a matter of much consequence what is the extent or the exact locality of the abscess, for everything is tied up together. It may, of course, happen that the peritoneal adhesions are very dense, and the pus may make its way into the connective tissue about the cæcum or other organ.

The onset of an attack may be either sudden or gradual. In the latter case there will have been attacks of bowel disturbance, constipation and diarrhœa, with abdominal cramps for a certain period, not enough, perhaps, to have caused the patient to seek the services of a physician, but sufficient to have caused a certain anxiety on his, the patient's part. Perhaps the physician may have been consulted, but if so, it has been for indigestion or some slight disorder.

In a certain number of cases the onset of the disease is acute, pulse and temperature both rise, acute pain is present and is referred to the right iliac fossa, although possibly elsewhere. The patient may be cognizant of a certain stoppage in the bowel, as he describes it, and he becomes anxious. Pain is generally, but not invariably, referred to the locality mentioned. Sometimes the epigastric region is indicated; sometimes the navel, and sometimes a corresponding point on the left side of the abdomen. In one or two of my cases the pain has been referred to the right loin, not far from the spine. On one occasion, where the pain was referred to the epigastric region, it could be mitigated or often made to disappear by pressure of the hand on the right groin.

The place of greatest sensitiveness has been referred to a point in-

side the right iliac spine, about two inches distant on a line drawn from the anterior superior spinous process to the navel, which point is supposed to be over the base of the appendix. I have found this to be the case, and while pressure in that region causes pain, I have not been able to locate it so accurately as has been done by others. Rigidity of the abdominal muscles is very constant, and more often seen on the right than the left side, but it sometimes requires pressure to induce it. Temperature shown by the thermometer is generally not high, unless in the late stage of the trouble. Purulent septic peritonitis may exist with subnormal surface or mouth temperature. Rectal temperature is higher by several degrees than mouth or surface temperature. I attach much less weight in forming my opinion of the patient's condition to the amount of fever than I do to the condition as shown by the pulse. This latter is a vastly better index.

Constipation is often present, and may be so marked as to be mistaken for obstruction; indeed, a certain number of cases have been treated for obstruction.

A large number of cases of appendicitis recover. These are catharrhal in form, usually, and do not fall under the notice of the surgeon. A few days' rest, gentle purgation, preferably by castor oil, enable the patient to recover. Not all cases are followed by perforation, but in some instances, when perforation occurs, the parts become walled in by a loop of intestine, thus shutting off the general cavity from infection. Another class exists where perforation takes place without the walling-in just described, attended by general infection of the peritoneal cavity. These latter cases die, with few exceptions. The specimen here presented represents this latter class of cases. It is impossible to differentiate them in the beginning. Early operation is indicated, and the attending physician, if not a surgeon, should always call a surgeon in these cases. Pulse, temperature and pain do not constitute absolute guides. If an operation is done, and if adhesions are found, do not hunt for appendix. A perforation will close, and usually give no trouble if pus is circumscribed. Make incision always and do not use an exploring needle for diagnosis. During the past year I have operated on six cases, with one death. In this case there was general septic peritonitis.

Nearly all operators with much experience have reported many cases where early operations were the means of saving lives, while had they been delayed, death must certainly have followed.

CAPE MAY COUNTY.

To the Chairman of the Standing Committee, &c.:

The health of our county has been exceptionally good during the past year, with the exception of an epidemic of measles, which visited us during the winter months, in some parts of the county assuming a severe form, especially at Holly Beach.

We had our annual visit of influenza early in the spring. At Court House it was of a severe type, affecting children and old people alike, followed in many cases by pneumonia.

Report received from Dr. James Mecray, of Cape May, states that the mortality was slight during the epidemic of measles. He has had no cases in which to use antitoxin serum, or should have done so.

Dr. Charles B. Corson, of South Seaville, writes as follows: "The only disease that might be called epidemic occurring in my practice was a severe form of enteritis, attacking both children and adults during August. No deaths occurred, although some cases were very severe. I attribute the cause to the unripe and immature condition of the vegetable life. Last summer was excessively dry, and I think it was impossible for fruit and vegetables to ripen properly. In every case I attended there was a history of having eaten heartily of some kind of fruit. Owing to the unripe condition of the fruit I am convinced that the amount of refuse matter from the same was more than usual, and of a highly irritating character. The stools were of a dysenteric type, but did not contain as much mucous as a true dysenteric stool. The newer antipyretic remedies, when combined with a heart stimulant, I have found useful in controlling high temperature. As they are all depressant to the heart, I

think a heart stimulant should be given. I find it difficult to get the laity to act upon the suggestions given in regard to improved sanitation. If it were possible to establish a thorough system of sanitation, I have no doubt that in a short time disease would be markedly lessened. I have had no personal experience with antitoxin serum, nuclein solution or thyroid extract, but from reading the medical journals I think the opinion of the medical profession is far from being unanimous in regard to their value. Antitoxin serum is not a specific, and I think a great many cases of supposed diphtheria treated with it were nothing more than mild throat trouble, that would have recovered without any treatment."

JULIUS WAY, *Reporter.*

COURT HOUSE, N. J.

CUMBERLAND COUNTY.

To the Chairman of the Standing Committee, &c.:

While Cumberland has not been "alarmingly healthy" during the past year, she has experienced an unusually healthful period, no epidemics of any moment having occurred so far as we have been able to determine.

Dr. Snyder, of Greenwich, reports a mild, limited epidemic of scarlatina in the latter part of 1895; also German measles in a mild form in the early part of 1896, requiring as a rule no medical attention. A case of cancer of pylorus, in a male over eighty-five years of age, came under the Doctor's notice, in which a greatly dilated stomach obscured the diagnosis by displacing the growth downward and to the right, making it appear as being located in or near the ileocœcal juncture.

The infectious and contagious diseases (tuberculosis

excepted) have been mainly isolated cases and mild in character as a rule, with but few deaths resulting. The prevailing fatal diseases have been lung affections, principally phthisis in its various forms, numbering nearly one-third of all the deaths in the county during the year.

Dr. A. R. Judson, of Newport, reports that he has used nuclein with success in consumption, bronchitis and anæmia. He also reports a case of laudanum poisoning (fʒvij) and rapid recovery by treatment with permanganate potassium an hour afterward.

Trional has been of service to Dr. Oliver, of Bridgeton. It does not affect materially the circulation or respiration. He further reports that the shaking of paralysis agitans has been stopped for three days with this agent. The most serviceable dose as a hypnotic is gr. xv.

A man of sixty-five years of age, who had met with a serious accident several years ago, came under the care of Dr. Wilson, of Bridgeton, suffering with brachycardia, the pulsations for five weeks not exceeding thirty per minute; latterly, nitro-glycerin, with nux. vom., have increased the same to from thirty-six to forty-five.

Dr. Sullivan, of Shiloh, reports fourteen cases of diphtheria, with two deaths. He claims that gratifying results were obtained in two cases treated with the diphtheritic antitoxin serum; he is convinced that its use ought to have a fair and careful trial. He also reports an interesting case of tubercular cerebro-spinal meningitis —a sequence of Pott's disease—resulting in death, and one of spinal meningitis—sequence abscess—with recovery.

Dr. M. K. Elmer, of Bridgeton, physician of the Board of Health, reports the general health and sanitary condition of our city good, and that our local Board of Health is making every effort to enforce the laws and prevent the spread of contagious diseases. Some sanitary

improvements have been made the past year, and additional sewers have been laid.

While nearly all of the physicians with whom I have conferred have confidence in the efficacy of antitoxin serum, nuclein solution and thyroid extract, investigation shows that the experiments as a rule, particularly with the diphtheritic antitoxin serum, have been in conjunction with other remedies. The general impression in our county is that they should be more thoroughly tested without the aid of other remedies, before receiving the endorsement of the profession.

Dr. E. Holmes died at his home in Greenwich during the past year, at the age of seventy-five years. He was a graduate of the University of Pennsylvania, and although not a member of our Society, was a highly respected citizen, and practiced his profession at Greenwich for over forty years.

J. C. APPLEGATE, *Reporter.*

BRIDGETON, N. J.

ESSEX COUNTY.

To the Chairman of the Standing Committee, &c.:

Replies to the queries of your honorable Board were received from Drs. A. K. Baldwin, George Bayles, W. J. Chandler, D. E. English, L. S. Hinckley, E. P. Iliff, J. J. H. Love, H. E. Matthews, R. N. Newton, S. E. Robertson, E. Schwartz, J. W. Stickler, T. Y. Sutphen and Arthur Ward. They call attention to the wide prevalence of measles, its unusual severity and occasional mortality. Complications have not been especially noted, but numbers of persons supposed to have been protected by a previous attack, have been again afflicted. Dr. J. W. Stickler refers to this feature, and your Reporter knows of several such instances.

There have been noted also many cases of diphtheria, scarlet fever, "la grippe," mumps, etc., but their types were, in general, mild.

The reports from the townships and from Orange, to the State Board of Health, dwell much upon the salubrity of each, and upon the careful and systematic attention given to sanitation. It is much to be regretted that no report appears from Newark.

In the year ending June 30, 1895, there were in Essex County 6,468 births; 6,023 deaths. The population was 312,000, making the death-rate 19.30, which is an exceptionally low figure. For Newark, the Department of Public Health gives the following data, which are compared with those for 1894. They are for the calendar years:

	1895.	1894.
Births	3,715	....
Deaths	4,621	4,543
Population	216,745	203,923
Death-rate	21.32	22.28

They present nearly the same figures as those reported by the State Board for the year ending June 30, 1895.

Infectious diseases were registered as follows:

	1894.		1895.	
	Cases.	Deaths.	Cases.	Deaths.
Scarlet Fever	1,145	69	623	27
Diphtheria	466	180	1,360	294
Small-pox	131	18	13	1
Typhoid Fever	88	36	148	39
Tuberculosis	...	515	....	591
Pneumonia	....	488	....	544

The city has established a bacteriological laboratory, with Dr. R. N. Connelly in charge, which has given excellent service. It has supplied the profession with an antitoxin for diphtheria, which has given general satisfaction.

It has made readily accessible to us a supply of culture media for developing the bacilli found in infected throats. These are collected systematically, and the diagnosis of each case established. We are still willing, however, to have the mortality further diminished.

A new medium for the transmission of typhoid fever was recently discovered through Dr. H. C. H. Herold, President of the Health Department. The river-sand used in the laying of the numerous new pavements was suspected, and on reference to the bacteriologist was found to contain bacilli resembling those of typhoid fever and also the bacilli coli communis. The sand further had an odor suggestive of sewage, and contained free and albumenoid ammonia. Its use appeared to coincide nearly with a marked increase of typhoid cases in the latter part of 1895. Its employment has been discontinued.

We may here call attention to the polluted state of the Passaic River. It has practically become a sewer for all the cities and towns in its water-shed. The water is extremely foul and gives off a strong stench. It cannot fail to promote disease, and is making residence near the river intolerable. A legislative commission has at last been organized to devise proper methods of sewage disposal.

Improved sanitation.—The replies call attention to the benefit of the increased sewerage in Orange and Montclair, and of the new water supply in Newark.

New remedies.—Dr. A. K. Baldwin has had no good results from the use of aseptoline (Edson) in twelve cases.

Dr. D. E. English praises pyrozone and carbolated camphor.

Dr. L. S. Hinckley, in charge of the Hospital for the Insane, reports negative results from nearly fifty cases in which photo-nuclein was exhibited for long periods.

Dr. Love has had satisfactory results with diuretin in cases of heart disease and interstitial nephritis; with acetanilid in headache, and good results from carbonate of guaiacol in chronic affections of the lungs.

Dr. Mathews has had success from piperazine in uric acid disorders, and from bismuth subgallate in gastro-intestinal fermentation.

Dr. Robertson reports a case of traumatic tetanus, treated by Gibier's antitoxin alone, with prompt cure.

Antitoxin serum in diphtheria.—The replies are abstracted as follows:

Dr. A. K. Baldwin: "Value not fully established. Has had fair results in over fifty cases."

Dr. Bayles has faith in it, and no dread of injurious reactions or toxic sequelæ.

Dr. Chandler expects its value to be fully established.

Dr. English, is not satisfied.

Dr. Iliff thinks it not established.

Dr. Love says almost established.

Dr. Mathews thinks it worthy of the endorsement of the profession.

Dr Newton: "Of proved efficacy in proper cases."

Dr. Robertson reports excellent results from large experience with it.

Dr. Schwartz considers its value established, especially in croup.

Dr. Stickler believes it should be endorsed by the profession.

Dr. A. Ward is not convinced, but favorable to it.

Dr. Love notes that erysipelas antitoxin failed when used in a case of tetanus.

Therapy of nuclein.—Dr. Bayles: "Has given no satisfaction."

Dr. Love: "Has failed entirely to obtain any results."

Dr. Mathews: "No good results."

Dr. Newton: "It is worthless."

Dr. Hinckley: "No results from prolonged use in nearly fifty cases."

Thyroid extract.—Dr. Bayles: "No satisfaction."

Dr. Hinckley: "Worthy of confidence in select cases."

Dr. Love: "Negative results."

Dr. Newton: "Of proved efficacy in proper cases."

Dr. Schwartz: "No special benefit."

Deceased members.—Our hearts were saddened this past year by the loss of two valued associates—Dr. Charles F. J. Lehlbach and Dr. Emma W. Edwards—whose names were as household words, and whose memories will ever be fondly cherished. The Essex Society took appropriate action and prepared obituary notices, which are published elsewhere in this volume.

The medical societies of this county are active and well attended. A Babies' Hospital is about to be established in Newark under favorable auspices. The special supply of milk certified by the Medical Milk Commission, is obtaining an extended sale.

Respectfully submitted,

T. W. CORWIN, *Reporter.*

GLOUCESTER COUNTY.

To the Chairman of the Standing Committee, etc.:

The county has had the usual epidemics, such as measles, whooping-cough, with some diphtheria, also considerable "la grippe." Dr. Laws noticed a peculiar purpuric eruption in several cases of the "grippe," and one case of insanity following the disease.

A large number of cases of mumps were reported by the members in the last few months, especially in and

about Woodbury. Dr. Hunter, of Newbold, reports the health of Newbold and Westville to be improved by the conversion of meadows and marsh lands about there into a lake, and reports a decrease in the number of cases of intermittent fever, probably for the same reason.

From the few reports received from the members, they think the antitoxin treatment should be used longer to establish its curative powers beyond doubt, but all would use it. Several cases have been reported treated with it with very prompt relief, and all the cases so treated showed great benefit. Acetanalid has been used as a surgical dressing by some of the members, with good results.

Our Secretary, Dr. Reading, of Woodbury, was very sick for four months with purpura rheumatica of a very severe type, much of the time it was thought he could not recover, but he is now about again and seems to have fully regained his health. Dr. Luffbary, of Glassboro, has also been seriously ill during the last year from a number of perirectal abscesses, requiring an extensive operation which confined him to his bed for several months, but he is now about again.

Dr. S. F. Ashcraft, of Mullica Hill, reported three cases in which a toe was three-fourths cut off. The toes promptly grew in place again by being sewed on, and with an antiseptic dressing.

Dr. Reading, of Woodbury, reports a case of typhoid fever, with very high fever, reaching 106°, and was above 105° for several days; recovery ensued under the Brand treatment of cold baths.

Dr. Hillegass, of Mantua, reported a case of supposed asthma, but upon examination found indigestion. During the progress of the case, the patient, a man aged 62 years, was suddenly taken with a severe pain under the

right knee, which proved to be due to an embolism, gangrene setting in. The case was sent to a hospital, where the leg was amputated at the knee. The amputation proved to be too low down. Amputation was again done at the middle third of the thigh: recovery ensued.

Dr. Edwards, of Williamstown, reported a case of abscess of the liver, of six weeks' duration, of probable cancerous nature, with jaundice; no pain, tenderness or vomiting. The right lobe was hard and modular, and the abscess finally discharged by the bowel, half a gallon thick, tarry pus. There was subsequent hemorrhage from the bowels. The treatment was salines, calomel, castor oil and opium.

Dr. Buckingham, of Clayton, reports a case of gangrene of the foot and leg, in a woman, eight days after confinement. The gangrene extended upwards, and death resulted from exhaustion in about four weeks.

Dr. Oliphant, of Bridgeport, reported a case of diphtheritic croup, in which, on the third day, the child coughed up a membrane, the length of the fore-finger. He had used tr. ferri. chlor. and potass. chlor., with inhalations of steam from slaked lime, with good results.

Dr. Hunter of Newbold, reports a case of a woman, 23 years of age, who gave a history of severe cystitis. She had been married five years, had intense pain with tenesmus, urine loaded with pus, albumen and blood. Upon examination, he found what appeared to be a papillary tumor of the fundus of the bladder, or an encysted stone. Further examination failed to detect the right ovary in its proper position. Laparotomy revealed the right ovary in a cystic condition, and lodged between the uterus and bladder. On its removal, the vesical tumor disappeared and a good recovery was made.

In unusual and interesting cases, Dr. L. M. Halsey reports a case of typhoid fever with three distinct relapses, after a normal temperature for a week or ten days before each relapse; also, a case of ligation of the femoral artery for a stab wound, and a successful operation for an inguinal hernia, in a child two years old; also, operation for urethral fistula, in a male, assisted by Drs. J. G. Edwards and Charles S. Heritage, Also, enclosed with this report, you will find a paper, entitled: "Acetanalid, Its Uses, Medical and Surgical," which was read before the Gloucester County Medical Society at its May meeting, and was ordered to be sent to the Standing Committee, with the reporter's report.

It is with deep regret and feeling that I announce the death of Dr. L. F. Halsey, of Swedesboro. He was the oldest member of the Society, and is much missed at its meetings, at which he was always found, when possible.

CHARLES S. HERITAGE, *Reporter*.

GLASSBORO, N. J.

ACETANILID; ITS USES, MEDICAL AND SURGICAL.

BY CHAS. S. HERITAGE, M. D.

This short paper is not meant to give an exhaustive history of acetanilid and its uses in medicine and surgery, as it would take too much time, and the field of work and study in this line I have found to be quite extensive, but I only wish to mention some of the most prominent uses of the drug and also to get the views of the members of this Society as to their experience with it.

Acetanilid has been known to chemists for a long time, but has only been used in medicine for a comparatively short period. It is made by the action of glacial acetic acid upon aniline, forming the white crystaline powder, which is purified by crystalization and sublimation. Antifebrin is practically the same but is a patented name, and therefore the drug is more expensive when used under this name.

Acetanilid is supposed to be one of the principal components of the much advertised and apparently much used antikamnia, of which we receive so many samples at regular intervals. The action of acetanilid, when given in medicinal doses, is as a nervous sedative and anæsthetic, and its action upon the sensory portion of the nerves and spinal cord is inhibitory, as it is also slightly upon the motor portion. It has very little action upon the circulation or respiration in medicinal doses, the temperature is either lowered or not affected at all and it is eliminated from the system by the kidneys. In toxic doses there is a general anæsthesia of the whole body, with some paralysis, rapid and continuous failure of the circulation, the blood becomes a chocolate color—caused by the hemoglobin being changed to methamoglobin—with very rapid lowering of the temperature, death being due to paralysis of the respiratory centres.

In poisoning, the face and body became congested and livid, with great prostration; the pulse is very weak, and the respiration becomes very shallow. When this occurs it makes it necessary to give cardiac and respiratory stimulants, keeping up the temperature of the body by the use of hot applications or baths, also by hot drinks, if possible. Probably the first use of acetanilid in medicine was as an antipyretic, and it is often of great use as such. When given to a fever patient it will cause a reduction of the temperature, which is usually attended by a copious sweat, but this does not always occur. This causes a considerable exhaustion, as is often the case when fever is suddenly reduced from any cause. Therefore, in using acetanilid in fevers, or in fact in any other condition, we should be careful not to cause too much exhaustion, and watch its action for symptoms of depression, especially in the very young or in old age. It is usually not best to use it in the fevers of consumption and other exhausting diseases, but in strong persons it is of great service. It may be used in asthenic fevers if the fever is doing more damage to the patient than the exhaustion incident to the reduction of the fever would do, but it is not best to push it too freely in these cases, on account of the cardiac depression which is liable to occur.

This drug is used very extensively as an analgesic, and this is one of its most prominent uses, if not the most prominent and useful. It seems to have great powers upon the sensibility of the nervous system in almost any form of pain, and more particularly that caused by inflammation or diseases of the nerves or nerve centres, as in the case

of neuralgia, in its various forms, gastralgia, neuritis and sciatica, etc. It may now be given when formerly morphia was used, and without the many unpleasant after-effects of morphia. I have never heard of a person becoming habituated to its use, therefore there are probably not so many morphine fiends as before acetanilid was used so extensively.

In most cases of severe pains in the back from whatever cause, as for example those seen in the crises of locomotor ataxia, it is very useful. It has also been used in lumbago, often with much benefit. Chorea is one of the diseases in which acetanilid is used, but not extensively. We all know the usefulness of this drug in the "grip." In combination with quinine it gives great relief, especially when headache, backache and other distressing symptoms exist, and usually promotes a rapid cure in a few days. This is the best treatment for "grip," in my experience. In rheumatic fever it is also of great use in the acute form of the disease, in combination with the salicylates or alkalies; there is a much lessening in the severity of the symptoms and often seems to greatly shorten the length of the attack, and it has been recommended to be given alone as a curative. But its most valuable use is more particularly for the relief of the pain attendant to the disease and also for the reduction of the accompanying fever. It is used in chronic rheumatism, but is not found to be so useful as in the acute. It has been used locally in an ointment, combined with other sedatives, for rheumatism of the various parts of the body with some benefit.

Acetanilid, with caffeine and the monohomate of camphor, is considered one of the best combinations for the relief of the general run of headaches, from whatever cause, and seems to act very promptly in most cases, especially those due to over-heating, as in sunstroke; and also is sometimes of use in sick headaches, as it seems to act as an antiseptic in the stomach in adition to its sedative action. When the headache is due to fermentation and other disorders in the stomache, it helps to prevent the fermentation which is the cause of the trouble. When used in headaches due to fevers, acetanilid acts in a double manner, reducing the fever and allaying the nervous irritability of the patient. It is well, also, in the nervous cases or in nervous headaches, to combine some bromide with the acetanilid and caffeine, so that the sedative action upon the sensory nervous system may be increased by a similar but stronger action of the bromide. I have used the following formula in many forms of headache and find

it usually very effective. It is: Acetanilid, 2 gr., caffeine, gr. ½, camphor monohomate, gr. ½; make one tablet. I usually give two of these tablets at once, and one tablet every two hours afterwards if the headache continues; it is not usually necessary to take many doses before the pains are much lessened or are entirely gone.

In rheumatic headaches it is well to combine salicylate of soda with the acetanilid, and an alkali to promote its absorbtion, and to change the acid secretions. I have found acetanilid to be quite useful in some cases of dysmenorrhœa, given during the period. I usually give five grains every three hours, or as needed; this will very often relieve the severe pains in the back that are sometimes found in the cases. The cases which are benefited by this palliative treatment, I think would usually be permanently cured by dilation of the cervical canal.

I use it also for the pains which follow childbirth, and find them much lessened by it; but it should be given with care in these cases, giving no more than is absolutely needed, as the acetanilid is sometimes excreted through the mother's milk and is liable to severely affect the child. This drug has been recommended for epilepsy. I have tried it alone with not very good results with it, but I have tried the formula, recommended by H. C. Wood, of antipyrine, in combination with bromide of ammonium and Fowler's solution, with a somewhat lessening of the number of spasms, and I think it has stopped them altogether for a time. As acetanilid is considered an almost similar drug, or has a similar therapeutic action, it is more than likely that it would have a similar action in this combination, but I have not tried it as yet.

Dr. Brodnax, in an article in the *Medical World* of April, 1895, speaks very favorably of acetanilid in chills and fever, and considers it much superior to quinine. He says it acts promptly and well, without the tinnitus and other troublesome symptoms which follow full doses of quinine. He gives a dose of calomel in the beginning of the attack, if possible, to clean out the bowels, and the acetanilid in whichever stage of the disease he may find the patient. He also precedes the return of the chill by calomel and full doses of acetanilid. I have not had any experience with it in this condition. One of the latest uses of acetanilid is its use in surgery as an antiseptic, and for which great claims have been made by those who have used it and reported cases treated with it.

The first reference to its antiseptic powers was made by Neuth, in

the *London Lancet*, in April, 1889, who used it more especially in dermatology. Its most important use is as an antiseptic and as a substitute for iodoform, as a surgical dressing, (and it appears to have considerable power as such), without the objectionable features of the odor of iodoform.

When applied to wounds it appears to act upon the lacerated and exposed nerve filaments and the irritated and congested tissues, as it does in a measure when given internally as a sedative and local anæsthetic, so that there is much less pain and soreness than is the case in wounds which are treated otherwise. It is not very poisonous when used as a surgical dressing, unless the wounded or granulating surface is very large.

Dr. Wood, of San Francisco, in reporting a number of cases of various kinds of wounds in the *Journal American Medical Association*, in July, 1894, upon which acetanilid was used as a dressing with very good results, especially in burns, mentions one case of poisoning caused by dusting the undiluted drug upon the granulating surface of a burn covering the entire leg.

Dr. Thomas S. K. Morton, in a report of over a thousand cases in which acetanilid was used as an antiseptic dressing, read before the Philadelphia County Medical Society, in December, 1894, considers it very powerful in preventing pus formation, and especially useful in very dirty wounds, as in miners, etc., and when applied causes a rapid healing, the healing being, of course, more rapid as the wound is cleaner. He used it in almost all conditions, where formerly iodoform was used. He had very good results in venereal sores, and more particularly the chancroids, in which a rapid healing takes place by its use. He uses the pure drug in these cases. In the usual minor surgical cases, he thinks the full strength is unnecessary, and when the local effect is desired, uses a dram of acetanilid to an ounce of cosmoline, which he considers strong enough.

Acetanilid has been recommended in tablet or suppository form, in combination with mild astringents, as of use in leukorrhea, the tablet or suppository to be inserted each night, preceded by a warm water douche. It acts as an antiseptic and sedative to the inflamed mucous membrane. Five grains is the amount of acetanilid recommended. The number of uses of acetanilid are constantly increasing, and I have no doubt there will be many more uses discovered in the future, as the usefulness of this drug seems only to be in its infancy.

HUDSON COUNTY.

To the Chairman of the Standing Committee, &c.:

No impairment of the improved hygienic conditions of Hudson County, as noted in our last report, has taken place during the official year just closed, and, indeed, if any change has occurred it is in the direction of medical and sanitary progress. It is gratifying, however, to state that the same amount of interest is manifested in the monthly meetings of the District Society, and the average attendance is undiminished. Yet, in order to promote an increased efficiency in the work of the Society for the coming year, it proposes to adopt the plan of holding but one general meeting and as many specials as the best interests of the service may seem to require, believing that by this method the formation of a larger number of smaller medical clubs, with limited membership, will be encouraged and much more scientific service result.

The sanitary condition of the county is, with a few exceptions, second to none in the State, and were it not for the nuisance existing at the Pennsylvania car shops, on the Hackensack meadows, in the shape of a mammoth manure heap, disgusting not only citizens of New Jersey but of every other State who must enter New York City by some of the numerous railroads which cross this waste land, our county would be in the market as a valuable and desirable addition to Greater New York. In our last report a complaint was entered against the deleterous character of the drinking water supplied to the county. We are happy to say that, to some extent, this grievance has been remedied, and portions of our county, at least, are receiving and using pure Pecquannock water. It is to be hoped that the authorities will

soon settle their financial difficulties and provide the whole county with the same or an equally desirable supply.

The blanks sent by the Chairman of the Standing Committee were duly distributed, but a few only have been returned.

Dr. Corwin, of Bayonne, reports scarlet fever, diphtheria, rubeola and rubella as the epidemic diseases in his locality, and says that among the newer remedies "trional has been used with indifferent success," and aseptolin-Edson "worked a faith cure in one case." The same gentleman has operated on five cases of appendicitis, all pus cases, all of which recovered; he also furnishes a report of a case of laparotomy for ovarian abscess, which I also enclose.

The death of Dr. J. E. Salter, of Bayonne, who died February 25, 1896, is also reported.

Dr. J. H. Rosenkrans reports from Hoboken that no epidemics have visited that city and that his experiences with the newer remedies are unsatisfactory. Among his interesting surgical cases he reports one of hydatidiform mole of the uterus; one of hydrophobia in a man, which occurred eight months after dog-bite, with unsuccessful treatment by the Pasteur method; one of vaginal hysterectomy for cancer of the uterus, and one abdominal hysterectomy for fibroids.

Dr. G. K. Dickinson reports for Jersey City, epidemics of morbilli toxic rubella, pertussis and mild influenza. His opinion is favorable upon the use of antitoxin and the thyroid extract.

The commission appointed to examine the cause and extent of the pollution of the Passaic River have held meetings in the various towns and cities along its banks and are making a most commendable effort to secure

such data as will be of infinite advantage to future legislation in relation to this matter. Further, it is believed that this will not alone be accomplished, but that much information will be received which will be of great aid to the bacteriological knowledge of the medical scientists of our State.

Very respectfully,

J. A. EXTON, M. D., *Reporter.*

CASES.

BY FRED M. CORWIN, M. D., BAYONNE, N. J.

One Case.—Man, about 25, had a large tumor in right iliac fossa, on opening which, six or eight ounces of very offensive pus escaped. The distal half of appendix, fully separated, was found in the cavity. Toward the median line was a mass as big as a goose egg, which was believed to contain the stump of the appendix. This mass, consisting of omentum inflammatory exudate and intestine, was unraveled with the finger. The stump of appendix, swollen to size of thumb and an inch and a half long, was found ligated and removed. In unraveling the mass four or more coils of intestine protruded through the wound, showing that adhesions were pretty well separated. The wound was packed with gauze in usual way. Oozing was very profuse, saturating not only the dressings but all the clothing and bedding in less than twenty hours. On removing the gauze drains, at end of first forty-eight hours, three coils of intestine, each six or eight inches in length, again escaped from wound. They were replaced and wound repacked. At next dressing intestines could be seen in wound, but did not escape. Recovery was prompt and uneventful.

An interesting case was seen in consultation with, and is reported by courtesy of Dr. A. Dallas. Mrs. G., aged about 25; primipara; had been treated for uterine troubles previous to marriage. When in sixth month of pregnancy, she was looking through a house being built for her, and fell straddle of a floor-beam, lacerating labia minora

and vestibule, also wrenching her back severely. Wounds healed rapidly, but pains in back and side continued. At middle of ninth month the pain was so troublesome that it was thought best to induce labor. The cervix was dilated by Barnes' bags. Uterine contractions were very painful, but not efficient. When full dilatation was secured, high forceps were applied. Child delivered after protracted, hard pulling, undoubtedly causing its death.

Immediately after delivery a tumor, nearly as large as two fists, was felt midway between uterus and liver, apparently not attached to either. Fifteen hours after delivery, up to which time her condition had not been such as to cause uneasiness, the patient went into condition of collapse. Tympanitis rapidly developed, with tenderness, subsultus, rapid, thready pulse. Owing to tympanitic distention, the tumor felt the day before could not be found; it was thought to have been an abscess which had ruptured. Laparotomy was decided upon and done twenty-one hours after delivery. On opening peritoneum a quantity of turbid, cherry-colored serum escaped. The tumor felt the day before was found attached to uterus at fundus, by a pedicle. It was a fibroid, the size of a small cocoanut. On its upper side, *i. e.*, away from uterus, it was rough and shaggy, showing freshly torn adhesions, where it had probably been adherent to liver or other organs. On section, the veins and sinuses of tumor were found obstructed. The pedicle was ligated close to uterus and cut through. Another pediculated tumor, the size of an ovary, was removed from anterior surface of uterus. Half a dozen or more, the size of a pea, were not disturbed. The peritoneum was cleansed of small clots and all serum, the gauze drains inserted and wound partly closed by sutures.

She rallied from the ether, but soon began sinking and died nine hours after completion of operation. Two hours before death, when completely pulseless at wrist and profoundly comatose, a pint and a half of normal salt solution was thrown into vein of the arm. Pulse returned and could be easily counted for nearly an hour, and she became restless, tossing and moaning some for a while. It seemed as if the contraction of uterus not only tore the tumor from organs to which it was adherent on upper side, but also strangulated the same, cutting off its circulation to a great extent, and would probably have caused it to slough had she lived long enough, unless adhesions formed to nourish it.

HUNTERDON COUNTY.

To the Chairman of the Standing Committee, &c.:

Measles prevailed as an epidemic in nearly every part of the county, the type of moderate severity and the mortality low. It is worthy of note that of the large number attacked there were quite a few who claimed to have had the disease before. The question arises in this connection whether the first attack was really the measles, and if so, whether second attacks are frequent.

"La grippe" seems on the decline, as comparatively few were attacked by it, and these much less severely than in former years.

In March and April, influenza, or perhaps more properly, catarrhal fever, prevailed as an epidemic. The attacks were usually mild and the number of deaths few.

Scarlet fever and diphtheria occurred as endemics in a few localities.

Malarial fevers were apparently rare. The same is true of indigenous typhoid.

Phthsis is certainly less frequent than it was twenty years ago. Not so with carcinoma and sarcoma; these, undoubtedly, are on the increase.

As to the newer remedies, Dr. G. L. Romine speaks encouragingly of trional as a hypnotic.

Your Reporter has been pleased with the effects of antikamnia and codeine in bronchial asthma, given in tablet form in ten grain doses.

Dr. John H. Fritz reports a case of intestinal obstruction in a child of eight months. "The obstruction must have existed to some extent from birth. The post-mortem showed obstruction about six inches from the stomach. The cause of obstruction was not definitely ascertained, but supposed to have been inflammatory

bands. The bowel above obstruction was very much dilated, resembling a small stomach."

As to whether the therapy of antitoxin serum, nuclein solution and thyroid extract is fully established as to receive the endorsement of the profession, Dr. E. W. Closson cautiously says, "doubtful." Dr. J. H. Ewing: "Antitoxin and thyroid extract are, in my opinion, fully established." Dr. Ewing reports having used antitoxin in two cases with success. Dr. O. H. Sproul: "No; I would await further confirmatory evidence by reliable observers in genuine cases—not pseudo cases—of the diseases combatted." Dr. G. L. Romine says that he has "given nuclein solution a faithful trial in suitable cases, without observing any beneficial effects whatever."

Your Reporter's opinion is that the use of serum antitoxin as a prophylactic measure is fully established; as a remedial measure it is beneficial just in proportion to its early use. After intoxication has taken place, little advantage is derived from it further than making intubation more successful.

G. N. BEST, *Reporter.*

MERCER COUNTY.

To the Chairman of the Standing Committee, &c.:

There were reported to the Board of Health, city of Trenton, the following diseases from May, 1895, to May, 1896: 48 cases of scarlet fever, 360 of diphtheria, 42 of typhoid fever, 315 of measles, 2 of small-pox.

EPIDEMICS OR DISEASES.

Dr. John W. Ward, New Jersey State Hospital, Trenton: "We have had nothing unusual in the hospital during the year except the appearance of a considerable number

of cases of rubeola. The cases were uncomplicated and mild in type."

Dr. G. H. Franklin, Hightstown, N. J., reports dysentery mild, no deaths, while diphtheria was severe, with a mortality of 8%.

Dr. Herbert S. Johnson, Lambertville, N. J., reports measles, though the type was mild; no deaths.

During November and December there was an epidemic of measles at Trenton of a mild type, but few deaths. During the year the usual number of cases of scarlet fever and diphtheria, but with a mortality much less than in previous years, due in all probability to the general use of antitoxin in diphtheria cases.

THE NEWER REMEDIES.

Dr. Ward uses sulphonal as a hypnotic and is pleased with the results; the maximum dose is gr. 15, the usual dose gr. 10. Has had no unpleasant symptoms of any nature whatever, following its use.

Dr. Franklin reports antitoxin as a good remedy, controling severe symptoms; shortens the disease and reduces the mortality. Endorses nuclein and aseptolin.

Dr. Johnson reports phenacetine acting well to reduce temperature, and sulphonal in insomnia; no after-effects.

Dr. C. F. Adams reports phenacetine and acetanilid increase the activity of quinine so that a smaller quantity of quinine is required, but does not decrease the tendency of quinine to cause tinitus aurium. Endorses antitoxin; cites nuclein negatively; has not used thyroid extract.

Dr. H. C. Norton endorses antitoxin as a specific, but reports negative results obtained from aseptolin (Edson).

Dr. H. B. Costin reports using aseptolin in three cases, with absolutely negative results. Endorses antitoxin; nuclein is worthless; has not used thyroid extract.

Dr. L. D. Tompkins endorses antitoxin.

I regret that further data can not be given, but I have received no more reports.

IMPROVED SANITATION.

Dr. Franklin reports that Hightstown is supplied with artesian water.

During the past year there has been erected a garbage crematory and a Municipal Hospital for the reception of contagious diseases, at Trenton, N. J. The sewer system has been extended, several miles of vitrified brick pavements have been laid, and the work of street improvement is progressing in all directions.

DECEASED MEMBERS.

Drs. C. H. Dunham and W. W. I. Phillips. [See Obituaries.]

CASES.

Dr. C. H. Franklin reports a case of intestinal obstruction in a child 3 years old; parents refined; operation; post-mortem revealed congenital band compressing the ilium.

Dr. H. G. Norton reports a case of anæmia, in which arsenic, Blaud's pills, Gude's pepto mang. of iron were used for months at a time with negative results. Finally, tincture of iron with strychnia was used, with recovery.

I. M. SHEPHERD, *Reporter.*

TRENTON, N. J.

MIDDLESEX COUNTY.

To the Chairman of the Standing Committee, &c.:

The report for Middlesex County, as usual, will be almost entirely a report of the city of New Brunswick.

The health of the county, as far as ascertained, has been unusually good, very little sickness of any kind having been reported. Some slight epidemics of diphtheria, scarlet fever and measles, mostly mild, have occurred in the city of New Brunswick, 589 cases of measles were reported, with slight complications and small mortality. Of typhoid fever, 36 cases were reported, nearly all of these cases coming from one source, and in this connection it is of interest to state that not a single case of typhoid fever has occurred when the city water was exclusively used. Every case has been traced to the use of some of the well water in the city. Thirty-nine cases of diphtheria have been reported and in very few has antitoxin been used.

Cranbury township reports very little sickness of any kind and likewise Monroe township.

The city of New Brunswick is gradually extending the sewerage, which is of the separate system, which will be delivered below the city with tide water and not in a basin, as formerly.

No deaths have occurred among our members during the year.

I cannot report the County Society in a very flourishing condition. Comparatively little interest is taken in the meetings and it seems impossible to rouse the members.

In answer to the question of serum (antitoxin) nuclein and thyroid extract being established, it seems to me that the thyroid extract has passed the experimental stage and has become firmly established in suitable cases. As to antitoxin and nuclein, more time is required before giving them our endorsement. Particularly is this true of antitoxin; it seems that the men who have the best opportunity to study its effect are most pronounced

against it and declare it not only does no good but is dangerous. It would look as if this most lauded cure would soon be placed with tuberculin.

A. VAN NEST BALDWIN, *Reporter.*

NEW BRUNSWICK, N. J.

CASES OF DIPHTHERIA TREATED BY ANTITOXIN.

BY DRS. N. WILLIAMSON AND A. L. SMITH, NEW BRUNSWICK, N. J.

CASES TERMINATING FATALLY.

Case 1.—A child about seven years old, living in one of the nearby villages, where there had been several fatal cases of diphtheria. Was first seen January 20, 1895, but probably had been ill since Thursday, 17th. Tonsils, soft palate, uvula and hard palate were covered with membrane nearly to the incisor teeth; temperature 100°; pulse 120. Apparently the patient was worse Monday morning, when antitoxin (about 12 c. c. from Pasteur Institute) was first injected. In the evening the respiration was very labored and could be heard all over the house, and although she said she felt a little easier, a second injection, 15 c. c., was given. On Tuesday, the 22d, two injections of 15 c. c. each were given; pulse 110, occasionally intermitting. On the 23d, the swelling was less; had had a very easy night though the breathing, which was very labored, was relieved after expectorating large pieces of leathery membrane. Her pulse becoming weak and irregular, there was a gradual failure in strength, though expressing herself as feeling very comfortable, Her urine contained albumen and casts, and death resulted from myocarditis ten days after beginning the treatment.

Case 2.—Family evidently ill for several days when first called at night. On arrival, one child was dead; the second was evidently dying. Antitoxin was used as a last resort, but death occurred in two or three hours.

Case 3.—A young boy about five years of age, with only a small amount of membrane visible, was given an injection. The following day his throat seemed well; the third day his throat had a membrane over it again, but no antitoxin was available. After an injection made on the fourth day his throat again cleared up, but his weakness continued and he died about the seventh day.

Case 4.—A very bad case in a child about 15 months old, of membraneous or diphtheritic croup; dying when seen, and an injection given, but as was expected, without any benefit, death resulting in a few hours.

CASES TERMINATING IN RECOVERY.

Case 5.—A girl, fourteen years of age; ill at the same time as No. 1; steadily growing worse under treatment with iron, chlorate of potash, etc.; glands badly swollen when, on the fourth day, antitoxin was used. After a single injection, marked improvement occured and her convalescence was steady.

Case 6.—A rather severe case in a young girl about seven years of age, involving both tonsils. She had just lost a brother with membranous or diphtheritic croup. Her illness lasted about ten days and was complicated with uticaria and albuminous urine.

Case 7.—A mild case, but distinct. No improvement was noticed in twenty-four hours under the administration of iron, etc. Hoping to avoid unpleasant sequelæ of urticaria or albumen in the urine, four small injections were used about twelve hours apart, but urticaria appeared.

Case 8.—A child three years old. When first seen, one tonsil was completely covered with membrane, the throat becoming involved. Two injections of antitoxin daily, of about 8 c. c. each, were given. This case also had urticaria and albuminous urine.

Case 9.—A young man aged eighteen went to his work in New York early on the 18th feeling very badly, but becoming much worse, came home again. In the afternoon he had a large patch on one tonsil which, next day, extended to the other tonsil and palate. The glands were badly swollen. Antitoxin was used on the third, fourth and fifth days, when improvement began and throat cleared up in three or four days. He had urticaria and a good deal of albumen in urine, and still suffers from paralysis of the palate and of the limbs to a slight degree.

Case 10.—A very mild case; brother of case No. 3.

Case 11.- A child about two years old. Had probably been ill at least three days before being seen, with diphtheritic croup. The first injection of antitoxin was given on Friday. The throat was clear on Sunday. It was nearly impossible to keep child still on Wednesday, though as usual there appeared urticaria and albumen in the urine.

Case 12.—A child seven or eight years old; had also diphtheritic

croup. Both tonsil and palate were covered with membrane. Recovery occurred after several days' illness, complicated with urticaria and albuminous urine.

These two recoveries, in the light of many years' experience with cases of this kind, seems little short of marvelous. This certainly shows a large percentage of cases having albumen in the urine, an old and well recognized sequela, as well as the newer one of urticaria, which I think is entirely due to the antitoxin. While many physicians have not or do not use it, we have the report of one severe case treated by Dr. Carol with it, terminating in recovery, though accompanied with albumen and paralysis. Dr. Riva reports twelve cases, mostly of a mild type, eleven of which terminated in recovery. Beside the fatal case, one was of a very severe type in a girl of about eighteen, in whom the tonsils, palate and nose were involved, and there was marked glandular enlargement. She recovered only after passing through a severe attack of nephritis and paralysis. Although the number of cases is small, we cannot but feel that the antitoxin treatment of diphtheria will often cure extremely bad cases, and while not knowing the number of cases which have recovered under the treatment of others, we can easily recall many that have proved fatal during the time included by these reports, which were not treated by antitoxin.

MONMOUTH COUNTY.

To the Chairman of the Standing Committee, &c.:

The Reporter for Monmouth County Medical Society sent your circular-blanks, containing your timely and important suggestions, to the members of this Society. Ten responses were received, as compared with six one year ago. This is gratifying, and brings with it a hope that this increase of those interested in aiding to gather the annual harvest of the general growth in knowledge of our profession, may never become less than at this present time.

The fall meeting of this Society met at Red Bank in October. The attendance was small, though interesting.

The Reporter not being present, is unable to give anything further.

The annual spring meeting of the Society was held, as usual, in Freehold, May 18. The attendance was good.

Antitoxin was among the topics discussed. Dr. Hepburn, of Freehold, reported three cases in which he had used it. Two were successful, while death occuring in the third was, he feared, "due, in part or wholly, to delay in its use until too late."

The expression of the Society was such as to consider it a potent remedy of such value, in consideration of the gravity of the nature of the disease in which it is used, as to warrant its early use in cases indicated, and thus avoid a feeling of serious neglect of duty, in case of failure in the use of the more common remedies. No other animal serums or extract, save that for rabies, was discussed at this meeting, and no reports sent in since.

Dr. Pumyea, of Allentown, mentioned a case of "Bells Palsy" occuring in a young woman, coming on suddenly while near the end of a long carriage ride in the cold. Treatment for about one year gave no improvement.

The District Reporter gave two cases of carbuncle. One began in September last, in a man 55 years old, known as a "hard drinker." Its location was on the back of the neck, extending about two inches on to the scalp; size, when fully developed, was five and one-half inches by seven inches, and over one inch deep in the central part. The patient, supposing it to be a boil, treated it some weeks himself by use of poultices. When the writer was called the temperature of patient was 105.5°, pulse weak, and the usual symptoms of blood poisoning; he was very restless and suffering much pain. Opium, digitalis and nux vomica, quinine and tr. ferri chloride were the internal remedies used as indicated during the

continuance of the trouble; a liquid nutritious diet being an important part of the treatment. Considering the local condition, there appeared a large mass of reddish-brown, spongy flesh, infiltrated with bad pus, very offensive, with more or less necrotic tissue in the field. In place of the poultice a dry dressing was applied, consisting first of a powder made of equal parts of salicylic acid and broacic acid, sprinkled well over the entire mass; antiseptic absorbent cotton was applied over this and held in place with a bandage. This was changed every twelve hours at first, and then daily until the slough came off, when there was a healthy, granulating surface. The dressing was then changed to petrolatum, containing five or six drops of carbolic acid to the ounce, and some antiseptic gauze placed over the ung. to keep it from adhering to the cotton. Some of the granulating tissue piled up above the normal surface of the skin, near the completion of the covering by the new skin, and thus called for the use of nitrate of silver.

The second case occurred in January last in a man of 70 years, "a hard drinker." Location on the lower portion of the neck and upper part of the left shoulder. Size of carbuncle four by five inches. The treatment began early, or during the second week. The treatment was same as above case, resulting in a more speedy recovery, probably due to the local application of the powder being used earlier in the treatment.

A resume of the reports received shows the following as to epidemics: That "la grippe" prevailed quite extensively from the middle of March until early last month. The complications were more of a neuro-rheumatic type, and less of that of the air passages than hertofore, while the digestive tract gave a large share of the trouble experienced in children.

Pseudo-membraneous diphtheria is reported to have been quite prevalent in some parts of our county, commencing in January last and continuing until last month. One of its special characteristics was to extend into the nose after appearing in the throat. The odor of necrotic tissue was absent, and all symptoms were less severe than in true diphtheria. No deaths occurred.

True diphtheria was met in some portions of the county, with few deaths.

Scarlet fever, in mild to medium type, occurred in Freehold, Upper Freehold, Millstone, Farmingdale, Holmdel, Howell and Long Branch.

Measles and whooping-cough were reported to be quite prevalent throughout the county, commencing in autumn and continuing until spring, Asbury Park, Ocean Grove and Belmar being most affected.

Through the kindness of Dr. Henry Mitchell, Secretary of our State Board of Health, a copy of the letters addressed to the physicians and Superintendent of Public Schools by the Board of Health of Asbury Park, is incorporated in this report, trusting they may serve of use in the management of future epidemics of measles occuring elsewhere under similar conditions:

OFFICE OF BOARD OF HEALTH,
ASBURY PARK, N. J., December 19, 1895.

Doctor ——:

DEAR DOCTOR.—This Board has just learned that two cases of measles appeared in this borough last Sunday.

Eight years ago a wide-spread epidemic of this disease visited Asbury Park, causing an untold amount of suffering, endangering many lives. This disease is known to be the most communicable of all the eruptive fevers, and we may anticipate that it will prevail in epidemic form unless all intercourse between the sick children and those who are unaffected is prevented. We therefore urgently request

that you will promptly report to this Board, in writing, every case which may come to your attention. Notice will then be sent the family advising them how they may protect the health of the other children in the community, and such other steps to prevent the spread of the disease will be taken as this Board may find practicable.

Very respectfully,

D. C. BROWN, *Clerk.*

OFFICE OF BOARD OF HEALTH,
ASBURY PARK, N. J., December 28, 1896.

Prof. James Ralston, Supt. Public Schools, District 90½:

DEAR SIR.—Measles has been epidemic in Asbury Park. In the judgment of the Board of Health the usual methods for the restriction of the disease are no longer applicable in this outbreak, therefore the quarantine restrictions heretofore imposed have been withdrawn.

Very respectfully,

D. C. BROWN, *Clerk.*

Newer Remedies.—Under this head, Dr. Long, of Freehold, writes favorably of acetanilid in dressing chronic ulcers.

Dr. F. V. Thompson reports favorably of kola-cordial in conditions indicated for such a remedy.

Dr. J. B. Goodenough kindly reports quite fully, his experience with pichi, P. D. & Co.'s, in haematura. The case cited is that of a young woman, married, and the mother of five children. Her ailment began in 1893, when she passed clot of blood from her urethria, accompanied by much pain. This occurred at frequent intervals for over one year, all remedies failing until ext. pichi fl. was given a trial, commencing with 10 drops every four hours, and later increasing the dose to 20 drops. After taking one ounce the trouble had changed for the better. Four ounces of the remedy was taken in about three months, resulting in a cure that has remained so to the present time, though she has given birth to a child since then.

Dr. Goodenough also mentioned an experience with a calculi not common. Some months ago he was called to see a man, aged 50, whom he found suffering from a calculi, lodged in his fossa navicularis. After a failure to remove it with his forceps, the patient was anæsthesized, and the passage enlarged by a bistory passed along the side of the forceps, when the calculi was extracted. Its "size was about that of a small marble," brownish in color and somewhat irregular in shape, with roughened surface. Nine days after this event, this patient experienced the same trouble, resulting in gaining another calculi about the same size, and in the same manner of extraction. No history of renal colic or any special trouble of the bladder could be obtained from this patient.

Deceased Members.—Dr. Alex Betts, of Red Bank, was mentioned by Dr. H. G. Cooke, but no particulars given.

F. C. PRICE, *Reporter.*

IMLAYSTOWN, N. J.

MORRIS COUNTY.

To the Chairman of the Standing Committee, &c.

Measles seem to have been the most prominent epidemic disease of the year, having extensively prevailed in nearly all parts of the county.

An invasion of scarlet fever occurred at Morristown during the winter, and what threatened to become a serious outbreak was, in the opinion of Dr. Barker, of that town, arrested by having most of the cases sent to and treated at the annex of the Memorial Hospital. Dr. Barker writes of it as follows:

"There came a family from New York to visit some people in Morristown early in the winter, one of whose children had died of scarlatina. A little boy of the Morristown family sickened with scarlatina ten days afterwards. It was a very mild case and in a few days he was no longer ill, and was allowed to play around by himself for about two weeks and then to go back to the R C. school, where he mingled freely with all the children in that room. After the usual period of incubation, these little ones began to sicken and a genuine epidemic seemed inevitable. Where the children could not be safely quarantined at home, they were at once removed to the annex and the homes were fumigated and disinfected. In this way we treated forty-three cases with only two deaths. These two were from most unhealthy and squalid homes, and they were badly nourished and desperately sick when admitted, but no more so than were several others who finally recovered. One of the fatal terminations was after three weeks, dying from a convulsion, without nephritis. The other died from heart failure that developed early in the disease. He was kept alive for about the same time by diffusible and cardiac tonics and stimulants. Our annex, without any doubt, arrested what would have, without it, been an epidemic of vast proportions."

Dr. Day, of Butler, reports the great prevalence at the latter place, during the autumn of 1895 and the following spring, of malarial intermittents, chiefly of the tertian variety. The Doctor says: "In one part of my practice every family for some distance, and in many instances every member of the family, were afflicted with the 'chills.' This commenced during the summer of 1895, continuing until cold weather. Early this spring the disease again appeared and is the prevailing epidemic at

present. Nearly every day I am seeing new cases of tertian ague."

The Doctor states that previous to this invasion the above mentioned disease had been practically unknown for a long time in his locality. He is unable to fully account for the present outbreak, but suggests as a possible cause the making of artificial lakes throughout that section, "which has become quite fashionable since the East Jersey Water Company constructed the large reservoir a few miles from us."

As to experience with the newer remedies, Dr. Condict, of Dover, reports encouraging results in the use of "aseptolin-Edson" in pulmonary tuberculosis, and sends notes of three cases treated by him, which accompany this report.

Dr. Farrow speaks highly of trional as a hypnotic.

Dr. Barker mentions proto-nuclein as "an efficient and reliable agent in anemia—either essential or due to malarial, typhoid or other toxemias—in follicular tonsilitis and apparently in caries of the vertibræ. Such a case in a child, 2½ years, seems to have fully recovered after the prolonged use of proto-nuclein.

In reply to the question, "Is the therapy of antitoxin serum, nuclein solution and thyroid extract so fully established as to receive the endorsement of the profession?" Drs. Farrow, Lewis, Stiger, Becker and Condict reply in the negative; others either express doubt or report too limited experience in these remedies to warrant a decided opinion.

Dr. Douglas used antitoxin in one case of diphtheria and Dr. Miller in two, and both these gentlemen think the results encouraging enough to warrant further trial.

Dr. Barker, while in some doubt as to antitoxin, thinks "the nucleins are certain to command the increased con-

fidence of every practitioner who makes a careful selection of his cases and the preparation." Personally, he prefers the proto-nuclein prepared by Read & Camrick.

E. P. COOPER, *Reporter.*

REPORT OF THREE CASES OF PULMONARY CONSUMPTION TREATED WITH ASEPTOLIN-EDSON.

BY I. W. CONDICT, M. D., DOVER, N. J.

I am treating three cases of pulmonary consumption by the subcutaneous injection of "aseptolin-Edson," about the most recent of the "newer remedies." Neither of them has passed into the stage of breaking-down of lung tissue and the formation of cavities. All, however, had, when they came under my treatment, well-marked areas of consolidation, copious expectoration, night-sweats with feeble and hurried respiration, and broncophony, and great prostration. Two had experienced several hemorrhages before commencing treatment.

Case 1.—T. L., æt. 21. Family history bad, having lost three brothers and sisters with consumption at about the ages of 20 to 26. In the latter part of February he applied at the office on account of his "bad cold" and weakness; was greatly emaciated. Knowing the family history he was advised to see Dr. Cyrus Edson. This he did, and returned with a note from the Doctor, saying he had an area of consolidation in upper right lung. He recommended the daily injection of 100 minims of "aseptolin-Edson," and the use of the spray of iodoform and ether, and also the inhalation of vapor of phenol. c. p., four per cent., glycerine eight per cent., and aqua distil. eighty-eight per cent., for five minutes twice, daily.

The treatment was commenced March 1st, and for the first month followed up quite faithfully. Owing to his living more than a mile from the office, and the month being an inclement one, he occasicnally failed to reach it. The iodoform spray was not used, but the phenol. vapor was commenced in the early part of the month; also general tonic treatment, including quinine, Philip's emulsion and good nourishing diet—no alcoholic stimulants. Almost immediately the worst symptoms improved. The cough, expectoration, night-sweats,

which were copious, diminished, and there has been a gradual and well-marked progression since taking the treatment. There has been no hemorrhage; expectoration, which was very abundant, now amounts to only a few sputa daily; no cough, no night-sweats; says he "feels first rate;" has gained several pounds weight, and for the last two weeks has resumed his work in the silk-mill. During April the injections were given only every other day, and now one each third day. The physical examination reveals an improved condition of the lung.

Case 2.—Aet. 22, male, white. Began treatment April 1st. Extensive consolidation at base of right lung; had colliquative night-sweats; had several hemorrhages; exsanguinous countenance; respirations rapid; pulse 120, with ordinary symptoms of extreme debility. He was using cod liver oil emulsion, which he was ordered to continue. Daily injection of "aseptolin-Edson" and general tonic treatment adopted. Since treatment, which is daily, commenced, a marked change has taken place—no more hemorrhages; cough and expectoration almost entirely ceased; no night-sweats after the first eight or ten days. Atropine granules, $\frac{1}{500}$ gr., two or three each afternoon, helped check the sweating. At first patient kept his bed until 10 and 11 o'clock A. M.; now rises with the family, is about town all day, has a good appetite and enjoys his meals. In every way he appears much improved. The inhalation of the phenol. spray is practiced, but not the iodoform and ether. Physical examination of chest showed no *marked* change in condition of the lung, so far as I am able to determine.

Case 3.—E. W., age 21, white; silk-mill hand; rode to and from the mill. Mother's family were consumptive. Patient much reduced in flesh, and complains of short breath, anorexia; coughed and expectorated copiously. Physical examination: Right lung, apex and at base, dullness on percussion, respiration feeble, tubular breathing, expiration prolonged, increased vocal sounds, coarse rales; pulse 120 per minute, with hurried respiration; complained of great shortness of breath on going up hill or climbing stairs; night-sweats. Sputa was examined at Bacteriological Laboratory April 28th, with the result that tubercle bacilli existed in moderate numbers. Daily injections of 100 minim aceptolin, with the occasional omission of a day, were given. Patient improved from the first injection; cough and expectoration rapidly diminished; night-sweats entirely stopped, and appetite improved slowly.

SALEM COUNTY.

To the Chairman of the Standing Committee, &c.:

The limited number of replies received from the members of the County Society on the blank forms furnished them, will compel, largely, the making of a report from the information gained at the regular meetings of the Society. Salem County, the past year, has experienced about the usual amount of sickness, with no epidemics of any kind except in or near Salem, where there has been a number of cases of throat trouble, varying in intensity from simple pharyngitis to well-defined diphtheria.

In Salem city there have been reported by the Board of Health seventy-eight cases of diphtheria, of which number twelve died—a mortality of about fifteen per cent. There were a few cases not reported in the city, as well as in the adjoining townships, with two or three deaths. The origin of the disease is supposed to be direct contact with a child from a neighboring city who had not fully recovered. There were also a great number of well-marked cases of follicular tonsilitis.

Reports from other parts of the county indicate an unusual number of cases of simple pharyngitis and tonsilitis. Scarlet fever has been endemic and of a very light form. Cases of mumps, rötheln, measles and whooping-cough were reported, but nowhere in the county have they become epidemic. Several fatal cases of lobar pneumonia occurred during the spring months. There have a few sporadic cases of typhoid fever. Five cases occurred in one family in Mannington township, with one death. No other cases were reported within a radius of several miles.

Dr. James, of Pennsville, reports a case of peritonitis

following child-birth, in a patient twenty years of age. It began as an acute attack, then became chronic and resulted in death eight weeks after the initiatory symptoms. Of the newer remedies he reports having found proto-nuclein of decided benefit in the treatment of old ulcers.

Dr. Waddington, of Salem, speaks highly of the use of thyroid extract in two cases of goitre, and considers it an excellent anti-fat remedy. He also reports benefit from the use of proto nuclein in numerous cases of diphtheria.

Regarding the use of antitoxin, the opinion is not unanimous as to its efficacy in diphtheria. Accurate statistics as to its use during the recent epidemic are impossible, but a large majority who gave it a thorough trial regard it as a valuable remedy when used early in the disease and in conjunction with other treatment. It was also used for its immunizing properties with apparent benefit. There has been one death during the past year.

W. H. CARPENTER, *Reporter.*

SOMERSET COUNTY.

To the Chairman of the Standing Committee, &c.:

Measles have prevailed in some sections of our county. Dr. Ten Eyck, of Franklin Park, reports that in that locality it has been extremely prevalent. Dr. Fisher, of Bound Brook, also reports it as having been very prevalent, but of mild type. The mortality in Bound Brook has been nil.

Influenza and malarial fevers have prevailed to about the same extent as during the two or three years previous.

There were a number of cases of typhoid fever in Raritan during the latter part of summer and the fall. No reason for the cases can be given except the dry weather and the use of well water. Several cases proved fatal. Most of the fatal cases showed signs of perforation. In one case where an autopsy was secured, a triangular piece of egg shell was found in the vermiform appendix, with ulceration and perforation of the appendix. The sides of this piece of shell varied between two and three millimeters in length. The patient died in the second week and the characteristic lesions of typhoid were found. The ulcers were in the stage of induration.

Mumps have prevailed in this vicinity (Somerville) since spring.

Dr. Fisher, of Bound Brook, reports that proto-nuclein has given excellent results in debilitated conditions and during convalescence from "la grippe." He also reports that the sewer system in Bound Brook has been completed and is working well.

To the question, "Is the therapy of antitoxin serum, nuclein solution and thyroid extract so fully established as to receive the indorsement of the profession?" Dr. Reed, of Somerville, answers in the affirmative. Both he and Dr. Gaston, also of Somerville, report favorable results from the use of antitoxin. Dr. Gaston has used the serum as a prophylactic with apparently favorable results.

Among interesting cases, Dr. Hecht, of Raritan, reports a fatal case of post partum puerpural convulsions.

Dr. Taylor, of Millstone, a case of combined uterine and extra uterine pregnancy.

Dr. Fisher reports five cases of poisoning from eating the root of the spotted hemlock.

A case of triplets occurred in Raritan. The mother,

a primipara, miscarried about the sixth or seventh month. They all lived a few hours. The mother of the children was German; the father, Irish.

A. L. STILLWELL, *Reporter.*

SOMERVILLE, N. J., June 8, 1896.

SUSSEX COUNTY.

To the Chairman of the Standing Committee, &c.:

The report from Sussex County is limited to the reports of Dr. H. D. Van Gaasbeck, of Deckertown, and that of Dr. Sidney B. Strailey, of Andover.

The former reports diphtheria and measles in a mild form. As to experience with new remedies, he reports "antitoxin markedly successful," and "aseptolin successful in one case."

The latter reports 48 cases of dysentery of severe type, death in two cases, and measles affecting a large number of adults and of severe form.

"Is the therapy of antitoxin serum, nuclein solution and thyroid extract so fully established as to receive the endorsement of the profession?" Dr. Strailey replies "no," and Dr. Van Gaasbeck, "unhesitatingly yes, as to antitoxin serum," and claims no experience with "the others." My own reply is, *no.*

As to the disease prevalent in Newton during the last year, having received no reports from our physicians, I can make but a general statement, largely drawn from my individual experience. Last summer we enjoyed very good health. During the autumn there were a few cases of typhoid fever of a mild type, with one exception, which speedily resulted in death. At about the same time dysentery was somewhat more prevalent, but of a mild

form. During the winter we had bronchitis, "la grippe" and pneumonia, but hardly more prevalent or severe than is our usual experience. In fact, the only noteworthy occurrence is a very wide-spread epidemic of measles. It seems to me probable, that from the beginning to the present time, we have had about 400 cases of measles in Newton and vicinity. While the cases were many, the illness was not severe and there were few, if any, deaths from that cause.

In July, 1895, we lost, by death, Dr. Levi D. Miller, for many years Secretary of our District Society, and at all times one of its most highly esteemed members.

BRUNO HOOD, *Reporter.*

NEWTON, N. J., May 1, 1896.

UNION COUNTY.

To the Chairman of the Standing Committee, &c.:

I have the honor to submit, as the result of correspondence with the members of our County Society, the following summary of responses received from eleven members of the fifty. The diseases most prevalent were, in the order named, rubeola, diphtheria, scarlatina, rubella and enteric fever. Rubeola was, in some places, of a severe type and complicated with bronco-pneumonia, with considerable mortality. Scarlatina and diphtheria were generally mild in character, with few deaths.

One case of Hodgkins' disease is reported in a man seventy-three years of age, who was sick one year and a half with the usual symptoms, terminating in death by asthenia.

Aseptolin seemed to cure several cases of chronic malarial poisoning where other remedies failed. Salo-

phen is spoken of very highly for acute articular rheumatism, but did not act so well in the chronic form. Trional seems to have come into quite general favor as a hypnotic, it being preferred to sulfonal in many cases

Several of the cities and towns along the line of the Central Railroad are making great improvements in sanitary conditions, notably Elizabeth, Plainfield and Westfield. In Elizabeth a very important step is soon to be taken, viz., the conversion of the Elizabeth River into a covered trunk sewer. Various efforts have been made in this direction heretofore without success. It is hoped now that the purpose will be accomplished. The same city is also to have a new contagion hospital, as well as an increased water supply of an improved quality. In Plainfield a complete sewer system, with sewer-beds about two miles away, has been put in successful operation in the past year. Westfield is just completing a sewerage system which is of the intermittent filtration type, and from which good results are expected.

Dr J. B. Harrison, of Westfield, reports a very interesting case, which he would like some light upon. The history is as follows: Acute mania developed in a young woman about two weeks following confinement. At first the only symptoms were headache and mania, the pulse and temperature being normal. Within the next forty-eight hours the pulse increased to 100 and the temperature to 104° F. The temperature became normal about the fifth or sixth day, and remained so. At the same time her mind became perfectly and permanently clear. Interrogation of thoracic and abdominal organs gave a negative result. The treatment consisted of potassium, bromid and iodid.; no malarial treatment given.

Dr. B. Van D. Hedges, of Plainfield, mentions three cases of scorbutus, due to condensed milk and patent

artificial food. All improved under cow's milk and orange juice.

Dr. Norton L. Wilson, of Elizabeth, reports a case of erysipelas, involving the orbit and frontal sinus, with purulent lepto-meningitis, which terminated in death. Also a fatal case of enteric fever, lasting twelve weeks, in which there was a distinct relapse. Death was due to breaking down of the retroperitoneal glands, resulting in peritonitis.

A majority of the gentlemen heard from are in favor of the use of antitoxin in the treatment of diphtheria. Some of them speak positively as to its efficacy. Others are uncertain and a few opposed. Regarding nuclein solution and thyroid extract not much is said, as they have not been tried to any extent.

I regret to have to conclude my report with a record of the deaths during the past year of four of our members, as follows: Drs. D. M. Miller, Job S. Crane, Thomas L. Hough, of Elizabeth, and Dr. J. J. Daly, of Rahway, all of them prominent in the profession. The County Society held meetings, passed suitable resolutions and attended the funerals in a body.

Very truly yours,

ROBERT S. SINCLAIR, *Reporter.*

WARREN COUNTY.

To the Chairman of the Standing Committee, &c.:

The health of Warren County during the past year has, beyond doubt, been the best in its history, as there is scarcely a report coming from any section thereof, of a death from an epidemic, a contagious or infectious disease, or even from any hereditary taint. Old age and senile

decay seem to have been the only enemies with which the clear-headed medical fraternity in this health-giving, pure, oxygenated county have had to contend.

Dr. Bonn W. Hoagland, of Oxford, reports five cases of typhoid fever in one family; all recovered.

Dr. Frank W. Curtis, of Stewartsville, reports one hundred cases of measles; all recovered.

Drs. Cook, Van Sickle and Osmun, of Hackettstown, report hundreds of cases of pneumonia and mumps, with scarcely a death, except from complications of old age and senile decay.

Many of the cases of mumps had all the usual symptoms of the disease except the enlargement of the parotid glands, which was certainly a remarkable coincident.

Dr. Stites, of Washington, as usual, reports a remarkable case. He says: "We had one case of compound comminuted fracture of the nose, extending into the sinuses, with a fracture of the frontal bone, both superior maxillary bones and the lower maxillary bone. The tongue was also split from the tip back, to the extent of one inch. The patient was sent to the Paterson General Hospital and, strange to say, has recovered."

While I may seem an enthusiast on the subject of the continued healthy condition of Warren County, I am not advertising for any of its summer boarding-houses, its beautiful, health-generating resorts and sanitariums.

I am still a firm believer, from observation and personal experience, in the immunizing properties and curative powers of antitoxin for diphtheria. The success that has attended the administration of *genuine* serum and its prompt and early use in proper hands, have placed it as a worthy associate of the vaccine virus of Jenner.

It would seem, in perusing the Transactions for 1895, that some counties in the State enjoy a greater immunity

from disease and death than Warren, as we note that said districts have not found it necessary to make any report to the Standing Committee.

Too much praise cannot be accorded those sanitarians and noble sons of Esculapius in such fortunate localities, for the supervising energy and self-sacrifice exhibited for the cause of human, physical suffering.

Truly yours.

J. H. GRIFFITH, *Reporter.*

PHILLIPSBURG, N. J., June 5, 1896.

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